

IN SEARCH OF A POLAR CONTINENT

ALFRED H. HARRISON



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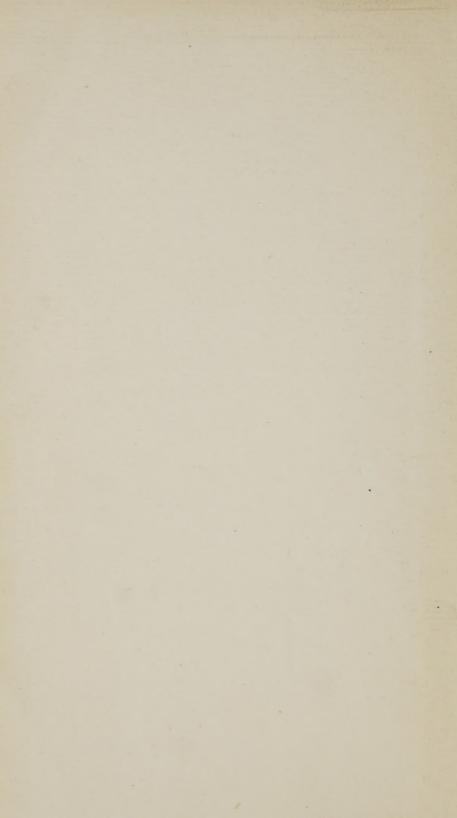
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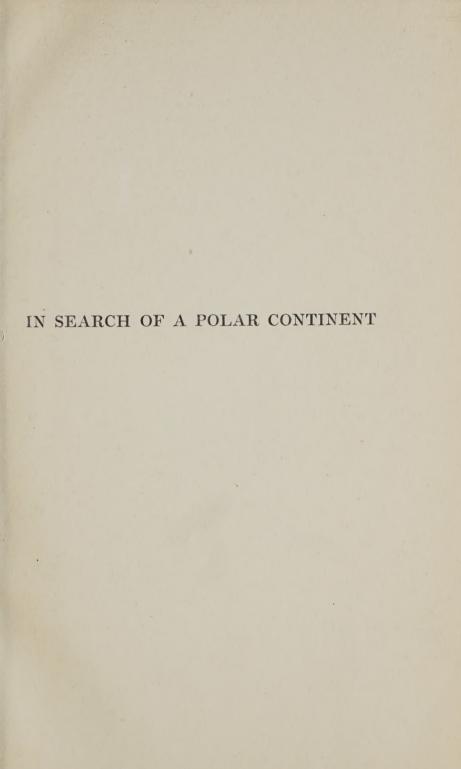
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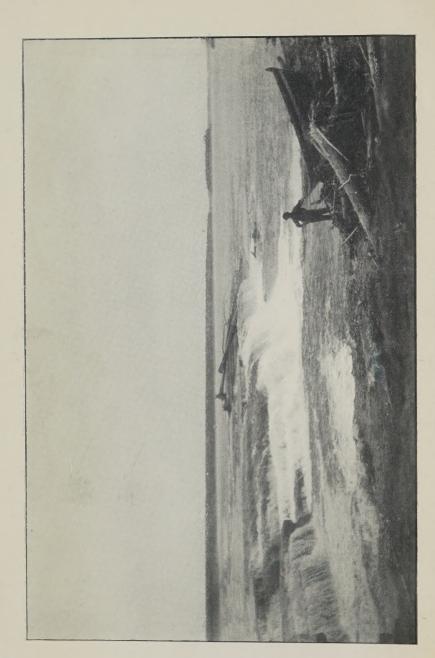








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A RAPID ON THE SLAVE RIVER.

IN SEARCH OF A POLAR CONTINENT

1905-1907

BY

ALFRED H. HARRISON

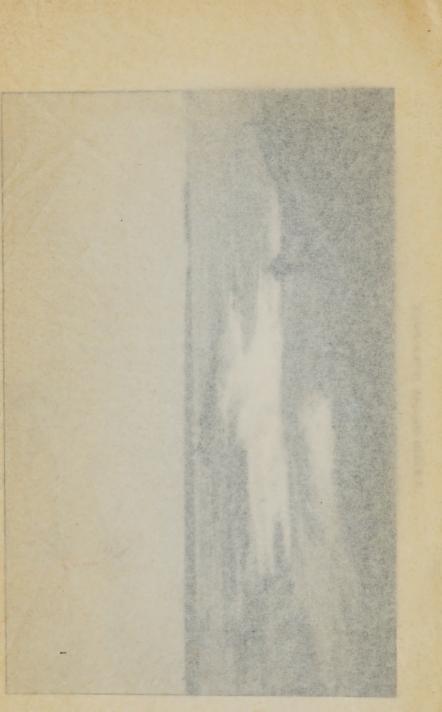
WITH ILLUSTRATIONS AND A MAP

TORONTO
THE MUSSON BOOK COMPANY
LIMITED

LONDON: EDWARD ARNOLD

1908

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DEDICATED

IN AFFECTIONATE REMEMBRANCE

OF

MY FATHER,

DANIEL ALFRED HARRISON



PREFACE

In offering the account of my recent expedition to the Arctic Ocean, I will begin by stating that my love of travel was inherited; for my father, while about the same age as I was myself when I made my first trip to the Rocky Mountains, began his career by going to Fort Good Hope, which is just on the Arctic Circle. This post belonged in the year 1847 to the Hudson Bay Company, which he joined when he was eighteen years old, and for which he continued to work until he was twenty-three. During the last three years of this period he was in charge of this fort. He met his death at sea; yet not in circumstances which the career of a man drawn from early years to travel would most readily suggest, for it was on a trip from London to Liverpool that he lost his life, in July, 1884—a trip on which he had embarked (such, again, was the irony of Fate), to recruit his shattered health. I was with him at the time, off the Longships of Penzance, on a small coasting steamer, which, strangely There was enough, was misnamed the Cheerful. a drifting fog at the moment when the Hecla, a man-of-war, ran into us, striking us amidships. Our vessel immediately sank; and my father, who was then on the deck, came down to my berth, saving my life at the cost of his own. It is with gratitude, therefore, no less than with filial affection, that I have dedicated to his memory this narrative of a journey which I should never have made but for his influence.

This influence lost no time in declaring itself, for no sooner had I completed my education at Stonyhurst, than I started on a sporting expedition into the Rocky Mountains. This was followed by a second trip to the same place, and, again, by a third into Northern Africa. This last journey, however, could not destroy my leanings towards the Canadian continent, which, steadily but imperceptibly, was ever drawing me to itself; till at last, after a long interval of years, I went to Slave Lake, with the avowed object of sport, as before, yet with an ulterior purpose of testing both the hardships of the country and my powers of coping with them. from finding myself unfit for the climate, I returned, after an absence of eighteen months, only to plan the expedition of which I now write.

The objects of this expedition were to penetrate as far as possible into that unknown region which lies to the north, and to meet and to get to know the natives, of whom I have always fostered an idea of making use in ice expeditions. Besides the natives, the whale-fishers who navigate those waters might, I trusted, be able to render me assistance. Furthermore, I wished to discover, if possible, whether there was land hitherto unknown in the Arctic Ocean: in ascertaining this, I would make Herschel Island my base of operations. These measures were themselves prompted by the ultimate desire, should

opportunity offer, of reaching the Pole; and the conviction with which the results of the expedition now to be related have impressed me is that the grand project of Arctic travellers is fully feasible.

Many of the incidents to be set forth may be considered unsensational, and even trivial. The answer is scarcely less obvious than the objection. A traveller tells his tale best by telling things exactly as they happened. If the events recorded are to speak for themselves, with little gloss or comment on his part, it is incumbent upon him to tell his tale fully and fairly. The most paltry incident may be the hinge on which revolve issues of unexpected moment.

One last word I would add to my Preface—namely, a word of hearty thanks to my brother-in-law, Mr. Thomas More Waterton, for his ready and generous help and advice, not only in writing the book, but also in revising the proofs. I am also greatly indebted to the Count Alfred von Hammerstein for several photographs of the Athabasca River which are here reproduced.

A. H. H.

September, 1908.



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At end

IN SEARCH OF A POLAR CONTINENT

CHAPTER I

EIGHTEEN HUNDRED MILES BY WATER-WAY

July 22 to October 4, 1905

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I LEFT Liverpool on June 15, 1905, in the Tunisien, of the Allan Line, and reached Quebec on June 23. I had foolishly forgotten to give the officer, who is there in charge of the Customs, notice beforehand of my arrival consequently, the day following the evening of my arrival was far advanced before all my business in this department

had been finished. I had a number of things on which I anticipated having to pay duty; but Colonel F. Bell Forsyth, who was in charge, and whom I have to thank for his courtesy and consideration, passed everything except the cartridges: on these I had to pay duty. That evening everything was in the hands of the express agents, and the next day I started, after nearly two days' pleasant stav at Château Fontenac Hotel, for Montreal. Here I went, next morning, to the Observatory to check my chronometer; also we bought, at one of the many sumptuous shops of which this town can boast, a supply of Jaeger underclothing, to the comfort and utility of which I can bear willing witness. That night we took the train for Winnipeg. There I had to stay for three days, in order to make some arrangements with, and to get a letter of credit from, the Hudson Bay Company. At Winnipeg, also, I engaged a man, whose name was Darrell, and who accompanied me to the Arctic Red River.

The next break in our journey was at Edmonton—a not unimportant town, though small and remote, which may some day be one of the greatest cities in the world, since it has everything that the making of a city requires. The town itself is built on the Saskatchewan River, which is a fine water-way to Winnipeg and a great natural power that is already utilized. There are coal-fields close at hand; and, when I returned through Edmonton from this journey, I found two railways established, whilst a third—the Grand Trunk—will likewise soon have a station here. There is also an excellent club, which has members as hospitable as its managers

are capable; and the traveller who has been cheered on his journey by their welcome may be allowed to pay this slight but grateful tribute. When first I had seen Edmonton, there were only two brick buildings in the place; but to-day they have extensive brickfields hard by, and at no great distance a beautiful white stone is obtained. The surrounding country produces wheat and oats: these cornfields are amongst the most extensive in the world. Edmonton has always been the gate of the North, and will, when the Grand Trunk Line runs through it to the Pacific, be the gate also to the West. In both my journeys to the North this has been the place where I have bought many of the things for my equipment; and, though it has been my railway terminus, I trust that the day is not fardistant when many railroads, fringed by large cities, will stretch away from it to the northern country.

We left Edmonton on July 8, having stayed only a few days, since I was anxious to push on to Athabasca Landing, there to consult with my friend, Mr. Leslie Wood, as to the best way of taking my stores down the river. From this gentleman, who is the officer in charge of the Hudson Bay post at the landing, I had, two years before, received especial kindness; and having full confidence in his judgment, I was desirous of obtaining his advice.

I procured, therefore, two waggons—not without difficulty, for they are hard to get at this time of the year. The road or trail over the prairie to Athabasca is extremely rough; and although for the most part it runs, at any rate, on the level,

there are places where it is so precipitous as to give a single team of horses all their work to drag a loaded waggon through the little gullies. On such occasions-though I was not driven to adopt the device—the traveller who has two or more waggons will unhitch a pair of horses from one of them, and use them as leaders for those that remain, till by this means all the waggons have been dragged once more on to level ground. We spent three days in covering the hundred odd miles that lie between Edmonton and Athabasca. It was found best to make an early start, before the heat of the day had made itself irksome; and having breakfasted betimes, by 5 or 6 a.m., we were usually in excellent fettle for dinner at 10 or 11 a.m. This refection concluded, we would set forward again on our march, trusting to find wood and water by 4 p.m. Trees, as a rule, were more easily found than springs or pools. It was sometimes with the utmost difficulty that we could obtain a few pints of waterbarely enough to make tea for our little party of five, which included the two waggoners, and to water the two teams of horses. To procure even this pittance of the niggard element we had sometimes to creep along a slender pine-trunk that served as a bridge across the treacherous, sedgy swamp that girt some "Muskeg" (or small pool, with no outlet and no feeders), carrying our kettles -and almost our lives-in our hands. At other times we would be more favoured in happening upon a creek or some such piece of water; indeed, one of the party, who had brought his trout-rod, managed to capture—oddly enough, in rough, broken water—



SCOW ON ATHABASCA RIVER.



FORT CHIPEWAYAN.



not the trout he had expected, but a diminutive pike. Cleanliness, under such circumstances, was clearly a luxury to be indulged in but sparingly: a minimum of moisture served to scour our cups and plates; the billy, like a well-seasoned pipe that has been caked with divers tobaccos, threw a blend of coffee into our tea, or of tea into our coffee; marmalade and condensed milk agglutinated themselves endearingly to our trouser-knees; and the tin bowl in which our crockery was washed was used likewise for baking damper, not to speak of washing our own faces and socks. Despite the clearness of the air, much grime is inevitably given off by the blazing wood-fires, and smuts lodged thickly in our eyes and in the "knightly growth" which for several days had "fringed our lips" and faces. I have mentioned three meals: a concluding repast was not thought too much when we finally camped for the night; and in this nomadic fashion we reached Athabasca Landing.

Here I saw Mr. Leslie Wood, and told him my plans. He advised me to have a scow (a sort of broad punt or small flat-bottomed barge) built to take my stores down the river. This I accordingly did. Athabasca Landing is a small place on the bank of its namesake river—a mere hamlet, in fact, or cluster of wooden buildings, the chief of which, of course, are the Hudson Bay Stores, though Messrs. Revellion Brothers and Messrs. Nagle and Hislop have important establishments there. There is also a post-office, to which the letters are brought once a week by dog-cart from Edmonton, whither, in turn, the outgoing letters are sent

by the same vehicle. Small as Athabasca now is, it has doubtless considerable prospects: the railway will probably penetrate thither, and the surrounding country will be opened up and settled apace as far as the Grand Rapids (165 miles downstream) and up to the Lesser Slave Lake (210 miles upstream). At a small ship-building yard in Athabasca Mr. Jim Wood, who started here as a boatbuilder at the time of the Klondyke rush, has got a saw-mill; and as there is plenty of timber on the river-bank, boat-building is an easy matter. furthermore owns a steamer, called The Midnight Sun, which he constructed himself, and which plies up and down the river. In 1905 there were few establishments here of public importance; since then, however, this small outlying settlement has more than doubled its population, and, as I have said, it seems to have a future before it. Mr. Leslie Wood, of the Hudson Bay Company, I ordered two years' supplies for six persons, which I got packed into my boat on July 22.

In the meantime, while these preparations were afoot, my brother-in-law left me to return home. A day or two before his departure we had a game of chess, a pastime which seemed somehow incongruous with the surroundings. I was never more sorry to part with anyone in my life, and would have given anything if I could have persuaded him to continue the journey with me; but his mind was made up, and—albeit not wholly without regret likewise on his part—he left Athabasca in the grey dawn and the primitive mail-cart aforesaid.

Hitherto I had but been making ready to travel;

now at length the weary task of preparation—of attaining to the starting-point and of obtaining the supplies—was accomplished; and on July 22, 1905, the boat was finished. We baled it out and loaded it up, and set out forthwith upon the long journey, by unbroken water-way, to the Arctic Ocean.

I took with me, besides Darrell, a native named Felix Dumont, from Athabasca Landing. We had a small stove in our scow, and cooked everything on board, which enabled us to drift night and day. In order to let the men have their rest, I always

took the night work myself.

Our first stop was at Calling River, a stream of no great size, which comes from Island Lake, some distance inland. At the mouth of this river there is a nice settlement, where we procured some eggs and chickens. The settlers were busy getting in their hay; and I saw a good field of oats growing here.

Our next stage was to Pelican Portage, at which there is a large settlement. Here, moreover, on the bank of the river, there is a natural gas-well, and when alight it shoots forth a column of flame some twelve feet in height. As there is no other settlement between this and the rapids, I got Mr. Bentley, who was in charge of a trading-post here, to engage Thomas Bone and Joseph Cardinal as guides for the rapids. Mr. Bentley had, it so happened, just bagged a couple of moose, which he killed as they were in the act of crossing the river; and he very kindly made me a present of as much meat as I could carry, which was most acceptable. My party now numbered five men, and we started down the Pelican Rapids and onward toward the

Grand Island at the Grand Rapids. Through these we could not pass. No one has ever yet gone down the main channel here with a boat. At the time, indeed, of the Klondyke rush some miners did mistake this channel for the right course to be taken. Luckily their boat was driven on to a large rock at the head of the rapid. This was fatal, to be sure, to the man standing in the bow, who was straightway shot overboard—his body being recovered 600 miles downstream about eighteen months afterwards—but his comrades were all saved; for some Indians, who were encamped on the west bank, succeeded in getting a line over the boat and dragging it ashore.

We landed on the Grand Island, between which and the east bank of the river there is a channel which is navigable at high-water. We made a portage of our boat and supplies for half a mile, and then again proceeded down the stream. After leaving the Grand Rapids we had others to pass, which extend for about 80 miles. This we did without mishap. The chief ones that occur between the Grand Rapids and Fort McMurray are called severally the Boiler, Middle, Crooked, Long, Mountain, and Stony Rapids, the Little Cascade, and the Big Cascade, and, last of all, Moberly Rapids. The running of them is very exciting, and the river banks, being lofty and thickly-wooded, are favourite haunts of the black bear, one of which, and often some moose, you can scarcely pass without seeing. Should it chance to be the time of the year when flies are troublesome, you are the more likely to see game coming to the water. On this occasion we

saw three bears as we were going through the rapids. I fired at one, but he was so far away, and we were rushing past at such a rate, that there was slight chance of hitting him.

Fort McMurray has become a more important place of late years, owing to the labours of Count vôn Hammerstein, who has made it the main depôt, though he has several others along the river. boring for oil. An earth movement has taken place, resulting in a line of fault which is marked for more than 100 miles along the bank of the Athabasca River, and out of which oil has been oozing we know not for how long. The task that he has set himself is to find this reservoir of oil. He has done an immense amount towards helping to develop the natural resources of this country—an enterprise which is really the work of a nation, even within the limits of this Athabasca district. He has spent much time and money, and endured many hardships in the accomplishment of his undertaking, and I sincerely trust that his toil may be repaid worthily.

At Fort McMurray I dismissed the men who had brought myself and Darrell thus far. It is hard to get natives to make these long journeys; for though they are willing to travel from one post to the next, they are loth to go any distance out of their own country. I tried hard to get a man to accompany me to the Little Red River, which flows into the Athabasca, and is only 30 miles beyond Fort McMurray; but I was unsuccessful, and had accordingly to go on alone with Darrell. I left the fort at 8 p.m., and, sending him to bed, I sat up all night,

as usual. The river widens at Fort McMurray, and there are several sand-bars and bad channels. I can well remember what a perfect night this was: the Northern Lights were exceptionally splendid, and the sky so beautifully clear that the glitter of every tiny star was plainly discernible. So absorbed was I in the tranquil study of the heavens that I paid less attention than I should have done to the course of the river; and my negligence cost me dear, as it invariably does. At 2 a.m. I was horrified by an ominous grating sound against the bottom of the scow. I started up, and strove hard to dislodge the boat from a sand-bar which I could now distinctly see looming up in front of me; but the attempt was made too late. We had stuck fast in sand and mud, into which my pole sank deep, and I could get no bottom to push against. There was nothing for it but to wake up Darrell; and after standing in cold water and wallowing in mud for two hours, shoving and straining and hoisting, we eventually got the wretched scow back into deep water as daylight was just breaking. I was sure we were out of the channel, because this sand-bar was in the middle of the stream, and we ought by rights to have been against the east bank. However, we could not go back, so we had to take our chance of regaining the main channel by this route. Fortunately, at broad daylight, we found ourselves drifting round the sand-bar back into the main stream, and that morning we arrived at the Red River.

There is a Catholic mission at this post, and a Hudson Bay Company's store. The priest had a



NUNS VISITING SICK INDIANS.



A CREE INDIAN COMING IN WITH MEAT.



useful man, whom he lent me as a guide to Chipewayan, and I was very glad to get him.

The country between Athabasca Landing and Chipewayan is inhabited by Cree Indians, who are a tribe of fine watermen, as they live mostly on this water-way, and know every sand-bar and every stone in the channel. After leaving Fort McMurray for Chipewayan, anyone could take a small boat or a raft by himself, for there is not a single rapid of any kind; but the river is in places a mile in width, and there are many sand-bars and blind channels. To a canoe these offer no difficulty, but to the scow that is heavily laden they are worse than rapids, unless there are plenty of men aboard to give a hand. After leaving the Red River, we had 185 miles to cover before arriving at Chipewayan, and we drifted continuously, night and day, until we had reached it, early on the morning of Wednesday, August 2, having had a single delay, and that for a whole day, at the mouth of the river. This delay was due to a head-wind, which, however, dropped slightly at night-time; so that I decided to punt or pole the boat along the south shore of the lake, and cross, if possible, in the early hours of the morning. Luck was with us: we had a dead calm when opposite the Big Island, and were enabled to row across. Nevertheless this was a toilsome task, for the distance was ten miles—this, too, on a huge lake which is a veritable inland sea, whose waters it takes little to ruffle and make choppy for the oarsman. a wind arise while you are crossing, you may have cause for downright anxiety with a scow; indeed, the ever-present possibility of this happening is

enough to make you preoccupied. By changing each man in turn and letting him steer for a while, I managed to make the crossing easier; and glad I was when we found ourselves made fast to the landing under Collyn Fraser's trading-post. Chipewayan is a large settlement for these parts, and is situated so as to enjoy a lovely outlook. It stands high on the north shore of Lake Athabasca, commanding a full view of the many pleasing islands which the lake encloses and which are thickly wooded. There is a Catholic mission here; also a mission belonging to the Church of England. The Catholics have a large native school and a convent. I went over the school, and was much impressed by the cleanliness and brightness of the children. These are fifty in number, and they are being taught to work in the most useful way of which their circumstances in life will admit. I also went and called upon the clergyman in charge of the Church of England mission, and he kindly gave me some newspapers and magazinesliterature which one prizes highly in these districts. M. Pierre Mercredi, who is in charge of the Hudson Bay Company's post here, did everything he could for me: he paid off my native, with whom I was sorry to part, and engaged me another man—Jim Anderson-to accompany me to Fort Smith. It may be useful to mention that there is a family which has always lived at Chipewayan, of the name of Loutit. There are several boys in this family who are good travellers, good dog-drivers, and excellent guides, and whom I can therefore recommend without hesitation; but to secure them is difficult, though most desirable.

My stay at Chipewayan was short; I departed thence next night. Five miles stretched before us to the mouth of the Slave River, which was reached without trouble, and we drifted towards Fort Smith.

The Slave River flows for 300 miles to Great Slave Lake, and Fort Smith is about 105 miles from Lake Athabasca. There are rapids at Fort Smith which extend over 15 miles, and a portage has to be made. There are carts and waggons here to convey both baggage and boats. So far as game was concerned, our drift down the river was now more successful than it had been hitherto; for, after passing a point of land one day, I chanced to look back, and saw a black bear come out of the thick timber, whence he was probably driven by the flies. Unaware, doubtless, of our proximity, he walked to the end of the jutting piece of land, and threw himself into the river, across which he began to swim. This was too much for my native guide. Seizing his rifle, he jumped into the canoe, which I always kept in readiness by the side of the scow, and in the use of which he was an expert. Arma virumque cano(e): following the bear, the Indian allowed the animal to gain the shore before shooting it, the reason, of course, being that if he had killed it in deep water it would have sunk. The quarry proved to be very fat, and kept us in fresh meat for many days. We likewise killed a lynx before we got to Fort Smith.

Between Fort Smith and Lake Athabasca you pass the Peace River, which empties itself into the Slave River at this point—about 30 miles, that is to say, from the Lake. The Peace River is a noble water-way of some 600 miles in length from Fort Vermilion. It is navigable, and there are steamers on it; whilst the current flows through a fine country at the rate of five miles an hour.

At Fort Smith I had the good fortune to meet Sergeant Fitzgerald for the first time. He was then returning from a two-years sojourn at Herschel Island, and he gave me some very valuable information. He impressed me strongly, but I shall have an opportunity of speaking about this gentleman again. was at that time a sergeant in the North-West Mounted Police, and was a most capable man in this country. We had little difficulty in making the portage, and I managed to get everything taken across in two days. The Hudson Bay Company's steamer Wrigley was on the other side; she had just come in, and was going back to Fort Resolution, and thence to Fort Rae, at the north-west end of the Great Slave Lake. I saw Mr. Anderson, the chief factor, who told me that he could not take me across Great Slave Lake this time, but that he would do so on his return from Fort Rae. This would have rendered a long delay necessary at Fort Resolution; I decided, in consequence, to go on as slowly as possible, and drift quietly down the Slave River, waiting for the Wrigley at Fort Resolution.

I was glad to be able to go slowly down this river, as I had spent some months on it the first year I was in this country. We had not drifted far from Fort Smith when Darrell, who was looking after the boat while I was working out some observations, took us down a *cul-de-sac*: this annoyed me very much; and I made him tow the boat back again into the

main channel, not a little to his discomfort. We had head-winds nearly all the time, which made our progress slow but sure. From Fort Smith to Fort Resolution the distance by water is nearly 200 miles; and while drifting over this space I kept a sharp lookout for game, and got a number of wild-fowl, which kept us in fresh meat. We did not kill any moose, though I saw many signs of them on the banks. There are several places on this river where a portage of half a mile will save you some forty times that amount—not, however, if your load be as heavy as that which I now carried; so we had to drift the whole way, and at Le Grand Tour, a big bend in the river's course, I met an Indian called Bushy, who had worked for me at Slave Lake in 1902. He had just killed an abundance of bear and moose, so we got some fresh meat from him. We also got fresh fish in the lakes. Most of the small streams which run into the Slave River come from large lakes that abound with fish. To these lakes we often went up in a small canoe, and set a net, which, as a rule, if left out all night, contained some couple of dozen fish the next morning; or, to give the component weights of a specimen "haul," we had on one occasion 2 pounds of white-fish, 25 pounds of inconnu, 10 pounds of trout, and 20 pounds of pike. We had always, in fact, to throw back a great number, keeping only two or three for immediate eating. In the spring of 1903 I had taken an Indian and his family with me on to this river to shoot duck and geese; and before a fortnight was out we had killed sixty-three geese and a great quantity of duck. I had trouble, however, with this Indian, who was but

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a poor-spirited fellow, and he left me by myself at the mouth of a small river that ran down from a lake about 60 miles from Fort Resolution. Here for a whole month I was encamped alone, and had no difficulty in keeping myself—fish, wild-fowl, and black bear being plentiful. I had a net in the water, thereby securing, as I have already intimated, some two dozen fish a day, the bulk of which I threw back. In the Slave River itself, which is very muddy, I have never caught many fish, but the lakes off the river swarm with them.

Still speaking of 1903, I remember that just before the snow disappeared in the spring we moved our camp, and journeyed for several days down the river, camping again at night. In taking things up the river bank, my Indian, who was a heavier man than I, and who always carried a very heavy burden on his back, would walk up the snow-drift without snow-shoes and without going through; whereas I found that I had to keep on my snow-shoes, or I should have gone through the drift up to my neck. I asked him how it was that he never sank, and his answer was: "I walk as if I were not going through the snow, and you walk as if you would go through." Another occasion comes to mind when we met two sets of snow-shoe tracks of another Indian-one going and one returning—far away from everywhere and from everyone. I was walking at the time in front of the dogs, and at once stopped and asked my Indian, "What is this track here?" He scanned it closely, and said: "You see that this track approaching us is very faint, and that this one going away from us is very plain and deep; therefore there must be an Indian camped yonder. He went out yesterday to look at some rabbit snares, and returned with a load on his back, which made him sink more deeply; so he lives over there." This seemed quite simple when thus explained, and so we followed the deep track, which soon brought us to the Indian camp.

The Chipewayan Indians inhabit this locality, and their language is that from which all the respective dialects of the various Indian tribes in this northern district spring. Rabbits abound in this neighbourhood, though I understand that they become scarce every seven years. The fact is curious and hard to explain; all that is known is that every seven vears they get a disease which kills them offa fact which itself calls for explanation. When I was here in 1903 they were numerous, and within the space of a few miles I have in one morning shot as many as forty of them with a rifle. In the February of that year I got caught on this river with no provisions; but I had no difficulty in keeping myself for a whole month, as well as my companion and my dogs, by means of my rifle.

The breaking up of the ice on these rivers is a grand sight. In the spring of that same year I happened to be encamped about two miles above a bend in the Slave River: in this bend the ice, which had broken in mid-stream, got jammed, and during that night the water, in three hours, rose 14 feet. Sometimes, indeed, the ice gets piled 20 feet high in places, and seems to be solidly blocked right down to the bottom of the river; for, as the ponderous fragments come along, they are drawn in underneath the pack, and it is only when the water

has risen in this manner that the stream at length finds outlet and rushes away with a terrific roar, sweeping away the vast wreckage in its onset; and therewith the ice has wholly passed away for the season, saving only some isolated masses that emerge many days afterwards, covered with mud, from the river-bed into which they have been driven by the enormous pressure from above.

The reader must pardon me for recalling the incidents of a previous journey through the same country. It was natural that, when I found myself again on these waters, fragments of the excursion which had been concluded a few years ago should emerge (like the belated morsels of ice) in the memory; and, my present rate of drifting being leisurely, there was ample time for indulging in reminiscence. But this drift to the mouth of the Slave River was now at an end. We arrived there on August 28, 1905, after getting stuck many times before entering the lake. For these channels are very crooked, narrow, and shallow, and we had to get out of the boat, and put our backs under it to lift it over some shallow bars. About three days before the Wrigley arrived we reached Fort Resolution. and, having no anchor, we had to tie the boat to stakes and to large rocks.

Fort Resolution is very much exposed to the south-west; in fact, there is no harbour whatever, and in a south-westerly gale the waves roll in with fury against the shore. No mishap occurred, however, until the Wrigley appeared, and then it was her, not us, that an accident first befell. While entering the lake she broke her propeller, so she

had to be unloaded and dragged ashore, stern foremost, for repairs. While these were being accomplished one day and one night elapsed; on the following day she was loaded up again, and had taken three scows in tow, when it came on to blow from the north-west. We were still hitched up close to the shore under Fort Resolution. The fort looks almost due south; and opposite to the south-west. about two miles out in the lake, is a small island. called the Round Island, whilst north-west of the fort is the Mission Island. Our scow broke one of her lines, and at 11.30 p.m. I waded out into the lake, and had hard work in tying her up again. only we had had two anchors! Such a thing, however, cannot be got in this part of the world. Each time the scow broke one of the ropes we had to put on another; and in this manner we spent a very unpleasant night in an angry sea, which was constantly breaking over us, and expected each moment to lose everything we had. When daylight came I got a number of Indians to unload the boat and take its freight ashore. By this time the sea had got much higher, and eventually the scow was washed onto the shore. Being driven on to sand, it was none the worse except for being filled with water. The Wrigley also had a bad time that day. One of the scows she had in tow broke loose and drifted some five miles down into the bay, where it was driven ashore, and became a hopeless wreck. Ten tons of provisions were lost, which it had been intended to take to the Mackenzie River. When the storm was over I went into the water with several natives and baled out our boat.

then brought her back to the shore where we had placed our cargo, and having loaded her again, we pulled out to the *Wrigley*, which was anchored a mile out from the shore, and she took us in tow.

Fort Resolution is a delightful place. I spent a winter there in 1902-03, making many excursions into the surrounding country. There are three trading posts here; also a Catholic mission, where Bishop Breynart makes his head-quarters, and a convent in which about forty native children are educated. Everyone relies upon fish and reindeer for subsistence. I heard a story of a trout weighing 84 pounds having been taken in the Great Slave Lake; but though I saw many trout that were caught during my stay here, I never set eyes upon any weighing more than 45 pounds. While passing through on my recent journey, I offered \$50, or £10, to anyone who should bring me a trout that scaled 50 pounds; but when I came back Mr. Harding of the Hudson Bay Company said that he had not in the meantime seen any which weighed over 43 pounds. Even this, of course, is a large weight for lake trout. The white-fish, however, rather than the trout, is the chief food. It weighs about 2 pounds, and is caught in great quantities. The dogs never get anything to eat except fish, and they thrive on the diet. Two pounds of fish apiece daily is barely enough to keep them alive, but two fish weighing 2 pounds each are an ample ration for a dog.

The first winter that I spent on this lake I went out after caribou; and when we got among them, after six days' hard travelling, they were in countless numbers. This is no exaggeration. They

were on a lake ten miles in length and five in width, and it was packed so closely with deer that you could not catch a glimpse of the ice-flooring anywhere. We started from Fort Resolution on that occasion with thirty sledges; but only five of these arrived. The mode of hunting employed was curious. Clad in deerskin, the hairy side of which was outermost, one Indian walked right through the deer to the other end of the lake, without any of them taking much notice of him. surprised me very much, nor was the cause for surprise at an end. Two more Indians, clad in the same way, followed at a distance of about two miles behind the first, one on each side of the lake, and each of these was similarly followed by yet another, whilst I myself remained where I was at the lower end of the lake. When the foremost Indian had reached the other end, he began to shoot, and the deer, not knowing which way to go, started running round and round the lake. I killed half a dozen myself, and my companions each brought home a load. I cared to do so, I could have killed many more.

At the north end of Great Slave Lake lies Christie Bay, and thirty miles north-east of this bay is a second lake, of considerable size, enclosing an island, on which, upon another occasion, I had pitched my camp. I was just cooking my midday meal, when a herd of deer passed within a few yards of the camp fire, and I killed five of them in as many minutes. In this locality I stayed for a whole month with one Indian, and after catering for ourselves and for our dogs, I made a cache of fifty deer, some of which I gave to the mission, and some to

Mr. Gaudet, in charge of the Hudson Bay Company's post here. The end of November and the whole of December is the best time of year for going from Fort Resolution after caribou. The coldest temperature I have ever known on Great Slave Lake was 52° below zero; but for several days at a time during the winter I spent there we often had 40° below zero.

The Catholic mission is the most important place at Resolution, and Bishop Breynart has a diocese which extends from Fort Smith on the Slave River to the Arctic Red River in the Mackenzie—a stretch of more than 1,000 miles. Altogether there are ten churches in the diocese. At most of these smaller missions native children are schooled, and are taught how to lead a useful and godly life in this desolate region. Every one of these missionary posts or stations is visited yearly and supplied with the necessaries of life—an undertaking whereof the reader will hardly conceive the magnitude unless he has himself wandered far beyond the reach of railways. The children are not only educated but clothed and fed. The girls are taught how to sew and how to make their own clothes, as well as how to read and write; whilst the boys, who are also trained in these latter academic, if elementary, exercises, acquire a variety of crafts which will be useful—in fact, indispensable—to them in after-life. They learn, for example, how to grow vegetables and how to fish; and, as the Arctic fisherman has entirely to rely on his own hands and head, they are instructed in net-making and boatbuilding, not to mention house-building. I may



By H. W. Jones.

FORT SIMPSON.



add that many of these children are a credit to the good Fathers who cheerfully give up their lives and money to this work—a work of which the utility and the self-sacrifice are not, perhaps, sufficiently realized by us in our own comfortable homes, far away from that Arctic Zone wherein life's extras are mainly lacking, and its bare necessaries, at times, but scantily forthcoming. But can we, as Christians, who have been taught our religion at our mother's knee, shut our eyes to the good, when it is pointed out to us, which these holy men are performing every day of their lives? They live and die in their labours, the merit of which is known only to their God; yet truly it may be said that the children of the ice and snow "rise up and call them blessed."

Let me now return to the Wrigley, which had taken us in tow, and which started soon afterwards across the Great Slave Lake. We had hoped for a smooth passage, nor were we disappointed. From Fort Resolution to the Hay River—a distance of 70 miles—there is no harbour, and the passenger is seldom, perhaps, wholly without misgivings as he makes the crossing—a crossing more than twice the distance of that from Dover to Calais. Few, it may be shrewdly suspected, would care to make this lastnamed crossing in an open boat, though they are not often likely to have a worse time of it in the English Channel than may occur when there is rough weather on one of those inland seas. It was a faultless day, however, and we had a perfect crossing till we reached the very mouth of the Hay River, where we got stuck on a sand-bar. From this we were luckily dislodged before long, and steamed into the river.

There are two trading-posts here and two missions, one of which is Catholic, the other Protestant. There is likewise a Protestant school, which has been built up during the last fourteen years by the untiring labours of Mr. Marsh. He had thirty children in the school when I visited it, and he has had as many as forty-two. I talked with these children and went all over the school, and I cannot say too much in praise of the results of Mr. Marsh's work. Unfortunately, I did not meet him until I was returning home after my last journey, when he himself was leaving the country. His wife's health had broken down, and he was consequently hindered from carrying on any further the good work in which he had so ably persevered for those fourteen years. This was the only Protestant school which I came across in my travels through that country.

Having deposited the supplies which she had brought, the Wrigley continued on her course as quickly as possible, in order to make the most of the good weather. We soon got out of the Great Slave Lake into the Mackenzie River, but at the mouth of this we ran frequently aground, owing to the low water. It was a welcome change to find ourselves in the river again, after the rolling motion of the lake.

The next stop was at Fort Providence—a good place, in the fall of the year, for white-fish and inconnu, both of which are plentifully caught there. Besides the fort there are two trading-posts; also a Catholic mission, with its school. We anchored there for half a day, and then went on to Fort Simpson, which towers from the crest of a bank over the stream below. The bank itself rises 40 feet

above the stream; yet often, at the break-up of the ice, the pent-up waters come rushing over this topmost barrier. The fort stands on an island formed by the Liard River, which here enters the Mackenzie. This place used always to be the chief trading-post of the Hudson Bay Company, but Mr. Anderson, who is the chief factor of the Mackenzie district, has shifted his quarters. Besides Fort Simpson itself, there is one other trading-post here; there are also two missions, a library, and a museum. In the last-named building I noticed Dr. Rae's canoe, which he took with him on one of his Arctic expeditions. Many of the trophies seem to have been neglected. As the Wrigley did not go any farther, but went into winter-quarters from here, this was my last chance for sending off letters, so I made the most of Just as I was leaving, Père Vacher appeared with a sack of potatoes which he had grown in his own garden, and which were as good as any we can grow at home. We left Fort Simpson in company with another boat that was taking supplies to Fort McPherson. A head-wind blew from the north, cold and rainy. We rowed all day, taking turns with the oars. Only one man pulled at a time, and each man's turn lasted for twenty minutes. We continued thus to row and to relieve one another till nightfall, when I put down a drift-sail - no small help in these rivers, should you have a head-wind. I say put down, for a drift-sail is not spread to the breeze, but is lowered into the water and stretched out broadside to the current. To fix a drift-sail, you fasten the top end of it to both sides of the bow, and connect the bottom end, by means of ropes at

each of its corners, with the pair of rowlocks in the middle of the boat, each corner being thus attached, on its own side of the boat, to the corresponding rowlock. Consequently the boat, notwithstanding its own exposure to the head-wind, is borne along by the sail (which is exposed only to the current) at a rate little less than that of the stream itself. Q.E.F. I sat up all night, and in the early hours of the morning we got on to a sand-bar, and had some trouble in getting off it. While we were stuck here, the other boat passed us in the darkness, and I did not know whether it had gone on or not, so I went ashore at the first camp I came to, where some Slavy Indians, who could talk nothing but their own tongue, explained to me that the other boat had passed them when the sun was at a certain altitude to which they pointed. We made up for this delay by rowing hard all day and by drifting all night, and at 5 a.m. we reached Fort Wrigley, where, sure enough, we found the other boat, which had arrived only a few hours before us. This fort is now changed, being 18 miles farther from Fort Simpson. We did not make any stay here, but, in spite the north wind, which was very cold and was right ahead of us, we drifted on to Fort Norman, at the mouth of the Bear River. Mr. Fred Gaudet, with whom I had spent a winter on Great Slave Lake, was in charge of the post. I was very glad to meet him again, and talk over the pleasant times we had enjoyed together on the rare occasions when I had been at Fort Resolution. As I was most anxious at the present time to push on, we did not delay, but continued on our journey as soon as possible towards





Good Hope. It was now the last week of September, and the wind being in the north made us very anxious. Only those who know what it is to be on these rivers just before the freezing-up, and to have to make a headland, can understand how very cold and miserable the north wind is when it comes at this time of year. Everything in the boat becomes a mass of ice, and each oar and pole resembles a kind of glacial roly-poly.

So ably has Sir John Richardson described the mountain scenery of this part of the Mackenzie, that those who desire a detailed account of the heights that are on both sides of the river, from Fort Simpson to Good Hope, cannot do better than read his book. After leaving Fort Norman, I was so cold that I had to put on fur and to sleep in my sleeping-bag. We drifted night and day. The night-work I generally did myself, and during the day we had several races with the other boat to keep ourselves warm. this side of Good Hope there is a nasty rapid, which is always bad when the water is low, as was naturally the case now, just before the freeze-up. However, we managed to get through it without mishap, and soon passed the Ramparts, or gate of the Arctic—so called because very soon after passing it you enter the Arctic Circle. When we arrived at Good Hope, the ice was already drifting in the river; and I think I should have stopped had not my freezing courage been fired by some anecdotes which were now told me by Mr. Gaudet, the father of Fred Gaudet. These all had reference to my father, who had been at this fort in 1852, when Mr. Gaudet himself was also there. My drooping spirits, I repeat, revived

under the stimulus of his tales, so I made a last effort to get to the Arctic Ocean. The weather was very bad; and I sat up for five nights, and most of the daytime as well, during the remaining stages of the journey. It was 230 miles still to the Arctic There were continual snow-storms and Red River. winds, and everything in the boat was densely covered with snow and ice. During broad daylight one day Darrell ran the scow on to a sand-bar, which I thought we should never get clear of again. I had to get into the water and put my back underneath the boat, working it inch by inch for three hours, till it was once more adrift. We got to the Arctic Red River on October 4. It had been frozen fast for three weeks, and it was reported to me that the Mackenzie itself, a few miles lower down, was ice-locked; so I had to abandon the idea of reaching the ocean, and decided to stay here until the snow had fallen.

CHAPTER II

FROZEN IN

October 4, 1905, to February 12, 1906

An Arctic snowstorm—First journey with dogs—Making a fishery—The northernmost post of the Hudson Bay Company—An unforeseen obstacle—Christmas with the natives inside the Arctic Circle—Indian mode of snow-travelling—A record journey—Arrangements for going to Herschel Island—Winter track between Fort McPherson and the Arctic Red River—Fatal journeys—In praise of dogs—Hardships of winter travel—Frozen feet—The sun below the horizon—A cold spell—Prospects of game—A gruesome anecdote—Preparations for sledge journey to the Arctic Ocean.

At the end of the previous chapter I mentioned that I had decided not to push forward, owing to a report that, a few miles farther down, the Mackenzie was completely ice-bound. This information was given to me by Messrs. Campbell Brothers, at the Hudson Bay Company's post, whom I had gone straightway to interview after my arrival at the Arctic Red River. "The ice," they said, "has set fast some days ago at Point Separation," and they called in two Indians to confirm these tidings, which were, however, most untrustworthy. Had we pressed on in the drifting ice, we should, I think, have advanced several miles farther.

There was a good store here, so I determined to unload the boat and put everything in the Hudson Bay Company's keeping. It took two days to do

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this; and then, with the help of all the dogs belonging to the Indians, we dragged the boat out of the ice on to a secure place up on the bank. It has already been pointed out that these rivers rise enormously in the spring, when the ice begins to go, and the boat would have been swept away headlong had we left it on the water.

I wanted to go over to Fort McPherson to see Mr. Firth, who was in charge of this post; but we had to wait some time for a fall of snow. There was, indeed, some snow on the ground even when we arrived; but a real fall had not as yet come, and travelling with sledges was impossible. In this region you generally get many small snow-storms before you have a downright heavy fall, and this was the case during the season I speak of; yet on October 8, though the snow was coming down but lightly when we arose in the morning, the fall thickened later on, and lasted for forty-eight hours, during which three feet of snow were piled up in the open. This, of course, settled down in a few days, making travelling easier for the dogs. There is a portage* of 28 miles, which is made over a chain of

^{*} The word portage is used in three senses: (1) When the river is impassable, owing to rapids, the boat has to be carried by land until navigation is again possible. (2) The customary route by which boats are carried at these impassable places is itself called a portage. This route is often a short cut where there is a big bend in the river; the same is true where the boat is taken overland to save doubling a small peninsula in a lake. Accordingly, (3) a short cut for sledges has often likewise come to be called a winter portage, although the mode of travelling (viz., with sledges) is the same across the portage as it was before, whereas the first kind of portage involves a change in the manner of locomotion, viz., going overland instead of by water.

lakes between this place and Fort McPherson, and the police were now the first to make it. came over from Fort McPherson, and, though their seven sledges were all light, the journey took three days-a fact which shows how difficult it is to make a track on freshly fallen snow. This was the opening up of communications for that season between the two posts; and as I was anxious to get across, I went back with the police. Before starting, we loaded up nine sledges, at the mouth of the Arctic Red River, with dried fish, which was now to be obtained in abundance: on reaching this post, indeed, I had calculated that there were about 20,000 dried fish hanging up there, which had all been caught in nets and smoked over the camp fires. This industry of catching fish is busily and extensively carried on each year upon the Mackenzie River. The natives begin operations in August, and continue as long as the river is open: few fish are taken after the ice has set fast. The chief kinds of fish which are caught are the inconnu (or Mackenzie River salmon, though it would seem rather to be a sort of herring), the whitefish, and the trout. The inconnu, which turns the scale at anything between 20 and 40 pounds, is excellent provender alike for men and for dogs; when dried, it becomes, of course, much lighter by shrinkage, and can conveniently be carried on sledges. The white-fish, as I have previously stated, average about two pounds apiece; the heaviest I saw here weighed eight pounds. The white-fish, moreover, furnish a more toothsome repast than any other kind obtainable in these waters. There are numerous trout in the surrounding lakes, but I seldom procured any of them. There are too many flies in the summer for the Indians to take pleasure in trout-fishing; nor do these aborigines care, in the winter, to go to the trouble of fishing under the ice. I bought a number of dried fish, but not enough—one cannot buy too many—and paid at the rate of a dollar for every twenty fish—mainly white-fish. This cost might be considerably abated if the traveller were on the spot earlier in the year, for he could establish a small fishery for himself; in that case he would have to supply his native fishermen both with food and with nets, besides paying them two dollars a day. Given enough nets, each man ought to put up one hundred fish daily.

Having arrived with the police at Fort McPherson, the most northerly post of the Hudson Bay Company, I stayed there with Mr. Firth, who was in charge of this post, and whom I found to be a most charming and hospitable old gentleman. He left Stromness, in the Orkney Islands, in 1871, and has been in these parts ever since. He told me that no fewer than one hundred and seventy-five times had he crossed the mountains which divide the waters of the Peel from those of the Porcupine, and that he had made many journeys to Herschel Island and to the Arctic coast. He is a walking encyclopædia in his knowledge of the country, and is familiar with every Indian trail through the mountains. For fourteen years he was either at Rampart House or at La Pierre's house; he was forced, therefore, to keep five sledges and a proportionate number of dogs, for he had to spend the greater part of the winter in travelling between one or other of these posts and Fort



H. FIRTH AND HIS DOGS:



MAKING A PORTAGE.



McPherson, which was the nearest depôt whence

supplies could be brought to those houses.

I bought from Mr. Firth six dogs and returned to the Arctic Red River, meaning to start next day for Herschel Island. On my arrival, I received a letter from Darrell. The envelope contained a cheque, drawn out to me on a dirty piece of paper, for £55; and a note, stating that he did not mean to work for me any longer. I had treated this man with every consideration. I paid him half his money in advance, because he told me a very sad story about his brother who, he said, would probably be sold up. It was to return this sum that he gave me the cheque. I regret to say that I was completely taken in by him, and foolishly I had no agreement with him. When we met, I said what I thought of him; and, thereupon, he challenged me to fight, and I was compelled to defend myself. I then went over to Fort McPherson and had the man brought up before Inspector Howard. I charged him with breaking his contract. The decision was that Darrell had been punished enough, finding himself penniless in this country; and my accepting the cheque gave him a right to leave me. I have not received the money for this cheque, but it is stated to me that the cheque was lost in the post. When Inspector Howard gave this decision I had no intention of accepting the cheque. I took the cheque straight to Inspector Howard, who gave it back to me, stating that he could not accept it; and Darrell obtained a comfortable berth with the trader when he left me.

The Louchaux Indians, who inhabit this country,

could not be persuaded to accompany me to the Arctic Ocean at this time of year.

The truth was that they had plenty of fish just now; but as soon as this provender was finished and they were almost destitute, there would be no difficulty in getting them to do anything. These were the sort of people I had to deal with. A more contemptible lot of natives I have never come across, and they are the same from one end of the country to the other. I now made up my mind to remain in these parts until January. I should be content, I thought, if I could reach Herschel Island before February, when I resolved to make a trip out on to the ice; and all I wanted to do was to take with me what was necessary for the trip. I measured the distance with a wheel, and surveyed, with a prismatic compass, the tract between the Arctic Red River and Fort McPherson; I also surveyed the Peel and part of the Mackenzie River down to the mouth of the Peel, and in this manner I whiled away a pleasant and not unprofitable couple of months before Christmas. I went into Fort McPherson at that festive season, and found there some one hundred of the Indians, who had come in, expecting to be kept and fed during this week by the white population. Mr. Firth gave them a feast on Christmas Day itself, whilst on two other days Inspector Howard and I respectively treated them likewise to a spread. Each of these "swarries" included the elegant and exhilarating pastime of dancing—the most amusing part, perhaps, of the revels. For this purpose the large hall in the fort "was kindly lent on this occasion by Mr. Firth," as The Hyperborean Herald, had such a journal existed, would doubtless genteelly have phrased it;

and his kindness was probably rewarded by the agreeable and diverting scenes which he witnessed. These Indians have six different kinds of dance or jig, all of which are performed to the accompaniment of a fiddler. There are the Rabbit Dance and the Tucker, the Peel River Jig and the Reel of Eight, and the Double Jig and the Reel of Six. native dancers are highly proficient, and when two of them stand up to "tread a measure," it is quite a common thing for them to keep on at it for fifteen minutes, jigging hard the whole time—a feat which it may well take one's breath away to hear of, still more to emulate. Eagerly do the Indians look forward to this week, which has always been kept festive for them since the time of Mackenzie; and all of them who are within reach of one or other of the forts are wont to muster therein at this time. Nor is it astonishing that they should be such sprightly dancers, for they are the most unwearying people upon their legs—so far as travelling is concerned -that I have ever met with amongst natives. Whilst commending their prowess in travel, however, one is forced to condemn their method of travelling as wholly unsuited to—nay more, as often fatal in this climate: they may frequently be said, almost literally, to run to their graves. They advance at a double with their dogs, until every shred of clothing is soaked with perspiration; then they stop and kindle a fire, make a kettle of tea, and stand round drinking it till all their clothes are frozen on their backs,—the temperature, be it remembered, not infrequently being 25° below zero. Need we wonder that consumption is far from uncommon amongst 3-2

them? Kenneth Stewart, a half-breed of Fort McPherson, holds the record of travelling from this place to Herschel Island: the distance is 240 miles, and I believe that he accomplished it in three days. The dogs in this country are also good pedestrians. About their specific quality of doggedness there can be no doubt, and they are fast goers to boot. generally cover five miles an hour, and often travel for 200 miles between fort and fort. One of the best journeys I ever heard of was performed by an Indian from Fort McPherson, by name Quecitchya. He is still alive, and I saw him during my stay with Mr. Firth. Leaving Fort McPherson in May, Quecitchya walked to Fort Good Hope, took thence a loaded York-boat, and went upstream to Green Lake, near Prince Albert. From Fort McMurray he went by the Clear Water River to Portage La Loche, and at the end of September he returned, with another York-boat, to Fort McPherson, having thus accomplished in five months the extraordinary distance of 4,500 miles (or 30 miles a day for more than 150 days). This he did, moreover, before steam-power was known in these parts; and half the journey was against a current running three miles an hour.

Men of this mettle were worth getting; and when our festivities at Fort McPherson were ended, I arranged with Kenneth Stewart and with Quecitchya's young son to start for Herschel Island during the first week in February. A great load was thus taken off my mind, and I saw my way to arriving at Herschel Island in time to make an ice-journey. All my stores were at the Arctic Red River, so I decided to go back there. The trail was hard to

find and bad to travel upon, as in one night-no unusual occurrence—the wind had entirely filled it up with snow. The portage, or winter trail, from Fort McPherson to the Arctic Red River runs through a chain of lakes, and many are the stories which the Indians tell about the journeys over this portage. The first journey of the year is always the most arduous, and it was on such a journey, some years ago, that Kenneth Stewart's father lost his life. He started out for the Red River, but next day one of his dogs returned to the fort by itself. Suspecting that something was wrong, a search-party set off to look for him, and they found his hat upon the ice in the middle of a lake. There appeared, likewise, a large hole in the ice itself; and after some trouble, and at some risk to their own lives, they recovered the body.

This reminds me of another story I heard of a Scotsman who was crossing the mountains between Fort McPherson and La Pierre's house with a large number of sledges. These formed a train or procession, and, although himself still keeping to the trail, he got some distance behind them. Unhappily, the Indians who were with the sledges did not camp so soon as usual, but put off doing so until darkness had set in; they then turned suddenly off the trail at right angles, and pitched their camp in some timber on the mountain-side, where they were out of sight of the trail. The Scotsman evidently passed by the place where they had turned aside from the trail, and, not coming to the camp, he tried to retrace his steps and find it. That night the temperature was 50° below zero, and next morning they found his footprints. He had got off the trail, and had wandered round and round, until at last he lay down, exhausted, quite near the camp, and was frozen to death.

I have never been lost, but I have often been left by the Indians: they are really contemptible savages, who delight in doing these things. Luckily, I have always had my own dogs, which I have generally fed and driven myself; and I have had little fear of getting lost, for they share with horses the instinct of finding their way home if left alone. sagacity is only matched by their beauty. What wonder if a man becomes strongly attached to his dogs? They are the only living creature out here that works, and all the work there is to be done they Their life is truly one of toil: so soon as they are a year old they are put into that harness in which they may be said to die of hard work or of hunger. This last statement is perhaps too sweeping: they are sometimes rescued from utter starvation in order that they may avert this calamity from their masters; and the unfortunate animals that are the first to go without food are likewise, ever and anon, the last resource for supplying itfor supplying, rather, such sorry substitute for food as skin and bone can furnish. Needless to say, however, a man is reluctant for many reasons to transmute dog into dinner: malesuada fames itself only suggests this measure to him as a final, if not infrequent, expedient; and the utility of his beasts of burden to him-or, rather, his absolute dependence upon them-pleads for their lives more eloquently than his repugnance to the cooked animal, or his pitying fondness for the living one, could ever do in pinching times. Polyphemus, the one-eyed ogre,

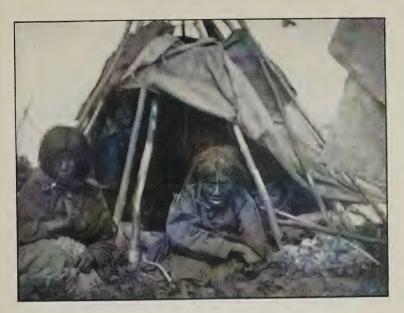
grimly promised Odysseus to eat him last of all; and the traveller gladly grants this boon—the utmost concession he is empowered to make—to his four-footed companions. By a kind of poetic justice, the life which he has thus conditionally spared to the dogs is not seldom the means of saving his own: many a time have I owed my life to these humble, trusty friends; and, at the risk of being prolix, I have seized this opportunity of declaring both my indebtedness to them and my appreciation of their

valuable qualities.

To resume the narrative: A single Indian accompanied me from Fort McPherson to the Arctic Red River, for no other purpose than to walk in front of the dogs and break the trail for them. We camped for the night after only a few hours' travel, for it was late when we left Fort McPherson; but in that time we managed to cover about a third of the whole distance, and we started again at 2 a.m. It is dark all day at this time of year, for the sun is below the horizon. My Indian soon got far ahead, as these natives will do, and ran on towards the Arctic Red River, getting off the trail and leaving only a faint track behind him. I felt sure, however, that the dogs would follow it up unerringly, so I left them alone, and walked behind the sledge without snow-shoes on. This was a most rash and foolhardy thing to do, for often on these lakes the cold and the weight of the snow cause the ice to split, and the water then oozes up between the cracks. If you have snow-shoes on, your feet seldom sink down to where this water has risen, but are borne up on top of the dry snow. On this occasion, however, not having thought to get off the trail, I had not taken

the trouble to put the snow-shoes on, and I soon found myself in soft snow and in water. It did not take me long to jump onto the sledge, and, the temperature being 57° below zero, my moccasins were straightway frozen stiff; yet I thought the water could scarcely have gone through them, for my feet did not feel at all cold. Accordingly, I did not stop to put on a dry pair of moccasins. This negligence was my second serious mistake. One should never omit to change one's moccasins if they are wet. I now put on my snow-shoes and got off the sledge again, arriving at the Arctic Red River at 10 a.m. There I took off my moccasins, and found, to my annoyance, that both my feet were frozen. Let me here point out that the freezing of any part of his body is one of the worst things which can befall a traveller in this region, and that the mishap is nearly always due to his own fault. The part frozen will ever after be peculiarly susceptible of cold. I paid dearly for this carelessness, for I was laid up for a week, and suffered considerable pain; when I could put my feet to the ground they remained tender, and they hurt me to the present day.

So soon as I was able to get about again I continued the survey of this winter portage, of the Peel River, and of that portion of the Mackenzie between the Arctic Red River and the mouth of the Peel. I made a wheel, and attached it to the back of the sledge. With this wheel I measured the distance, keeping up a route survey with a prismatic compass. While travelling down the Peel River, I had to climb an awkward bank with my sledge and dogs—a bank that rose up sheer for 30 feet. The sledge, drawn by six dogs, was carrying 200 pounds, and the Indian



INDIAN WOMEN.

By H. W. Jones.



who was with me fastened a line to the front of the harness and pulled, whilst I lifted the sledge as well as I could. Unfortunately, just as we got half of the sledge on to the top of the bank, the traces snapped, and the sledge with its whole burden came down on me, striking against the prismatic compass which was strapped around my shoulder, and shivering it to atoms. Luckily I had another in my pocket. It was only a small one, but it enabled me to continue my survey. From the mouth of the Peel to the Arctic Red River we had a head-wind and a temperature of 45° below zero. As the distance was only short, I made my Indian go on; but that I was illadvised in doing so was made abundantly clear to me by the best of teachers. Both the Indian and I got our faces frozen badly, and when cold thus intense is accentuated by a biting blast in your face, you realize the full meaning of the phrase travelling in the teeth of the wind.

On January 9 the sun appeared for the first time and lingered above the horizon for forty minutes. At Fort McPherson, I think, the period of its total disappearance at this season lasts for about ten days, while at the same fort, on Midsummer Day in 1907, the sun never set during an equal period. The time appointed for my departure to Herschel Island was now fast drawing near, so I made my final arrangements at the Arctic Red River, and went over to Fort McPherson. In many places I measured the depth of the snow; and, taking the mean of those measurements, I found that it was 2 feet $10\frac{1}{2}$ inches. This average depth, of course, was only on the level: in the timber the snow would have lain more deeply, and would, by reason of its softness, have been

extremely difficult to travel through. The snowfall, indeed, during the winter of 1905-06, was, I believe, one of the heaviest on record. In January the ice upon the lakes was, in some places, 3 feet 5 inches thick, and in other places it was doubtless even thicker. I only measured it myself in one spot. The coldest temperature I recorded was at Fort McPherson. I had four spirit thermometers exposed in December, 1905. Two of these stood at 68½° below zero, the third at 70° below zero, and the fourth at 72° below zero. At exactly the same place in July, 1907, with a mercurial thermometer I registered 80°. All these readings were Fahrenheit. In no other part of the world have I ever found the mosquitoes so bad as on the banks of the Peel. Fish may be caught at the mouth of any small river which runs either into the Peel or into the Mackenzie from the Arctic Red River to the ocean. There are grizzly bear, too, on the Peel; and in the mountains between that river and the coast there are sheep and deer. Anywhere on this water-way, from Athabasca Landing to the Arctic Ocean, black bear and moose are to be found; but in no locality are they numerous, and hunting them is a difficult undertaking. I would not advise anyone who wants to shoot them to go into this part of the country; but there are places, such as the delta of the Mackenzie, where there is good wild-fowl shooting. Polar bears have been known to come up as far inland as the Peel River; so, too, have white whale; but such occurrences were sufficiently rare even in the old days, and are now never to be heard of.

The Peel River is the southern boundary of the Eskimo, who come up to Fort McPherson, and to the Arctic Red River, during open water, for trading

purposes; and in bygone days they had many a bloody battle with the Indians on the banks of the Peel. I met an old Eskimo woman who told me that she could remember taking part in the last affray of this kind which ever occurred. Accompanied by her two sons, she was going up to Fort McPherson to do some trading, and, when they came to the Peel, they saw some Indian families encamped upon the bank. Forthwith the Eskimo travellers entered the camp and stabbed thirteen Indians to death with knives.

I made arrangements for taking two Indians and two sledges to Herschel Island from the fort. the time when I was loading up these sledges three Indians were lying dead in the store. They had all died within the last few days-but not from any murderous assault like the one just described—and had been conveyed into the fort for Christian burial. In this climate, of course, the body is frozen quickly after death, and its corruption thereby arrested, so that there is nothing to fear from leaving it unburied for a considerable time, or from travelling with it for long distances. Accordingly, the Indians are wont to bring in their dead from the outlying places to the nearest fort, and the body is then secured under lock in the store, until a grave is made for it. To make these graves is a task of some difficulty. It is generally effected by kindling a fire to overcome the hardness of the frozen ground, from which the yielding soil is then dug. Fire is again applied, and the next layer of earth dislodged; and so the work goes on until the grave is completed.

The presence, however, of the bodies of their fellow-Indians was looked upon as a very bad omen

44 IN SEARCH OF A POLAR CONTINENT

by my natives, whom, at the last moment, I almost despaired of persuading to start. This new check would have been particularly irksome now that the sledges had been loaded up. The reader may perhaps like to inspect the bill of lading. On the first sledge were:

D.4. 1.C.1					1b.
Dried fish	• •	• •			108
Oatmeal					16
Bacon					22
Cartridges				1	40
Wood-alcohol					33
Cooking-uten	sils		• • •	• •	15
Dunnage-bag		••	• •	• •	62
Bedding		• •	• •		
Bread	• •	• •	• •	• •	25
		• •		• •	20
Dressing-bag	}				40
Instruments	J			• •	10
Furs	1				
Axes	}	• •			28
Two rifles	1				
Cooked beans					20
			m.4.1	• •	400
			Total		429

The second sledge bore the following:

Dried fish					lb.
and a model	• •	• •			118
Oatmeal					16
Bacon					29
Cartridges					$\overline{31}$
Tent				• • •	20
Apples)		•	• •		20
Sugar }					27
Rice				••	
Two Primus cooking-stoves					28
Instrument-ba	g				22
Two sets of be	dding				40
Flour				• •	$\frac{10}{28}$
Bread	• •	• •	• •	• •	
Cooked beans	• •	• •	• •	• •	40
		• •			20
Tea					5
One rifle	• •				8
			FIN 1		
			Total	• •	432

It will be seen that resemblance between the loads upon the two sledges was secured not only in point of bulk, but also in point of quality, for there is wisdom, according to the proverb, in not putting all your eggs into one basket. The weight diminished very fast each day, since every night, at the end of a stage, we had to leave behind us enough for the men and for six dogs on the journey back. The Indians usually lodge this little store within a tree. or on a couple of poles which are rested against two boughs; or sometimes the storage is made in the snow. I have also seen them dig out a hole in the ice, and then cover the hole with snow, on which they next pour water, so that the snow is yet more tightly consolidated. Such precautions are needful lest the deposits partes vulpium erunt—become the portion of foxes or of wolves.

All the preparations were thus at length accomplished; and, stretched out on sledges which lay alongside of those we had loaded, were the silent and stark forms of the three Indians that were awaiting burial.

CHAPTER III

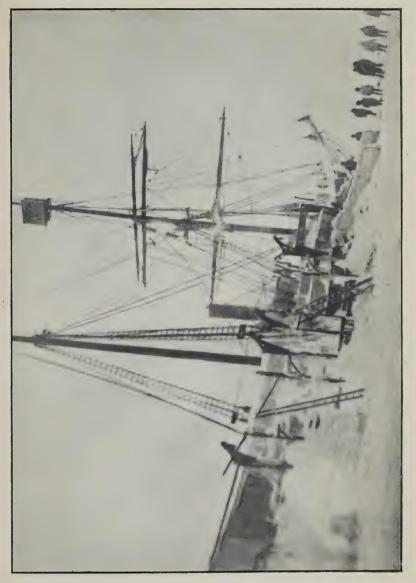
JOURNEY TO THE ARCTIC OCEAN

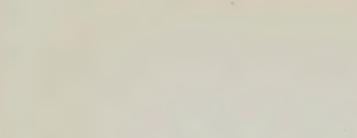
February 12 to March 5, 1906

Indian and Eskimo sledges contrasted—Abandonment of supplies—Journey from the Peel River to the mouth of the Mackenzie—A bad track—First impressions of the Eskimo—Delta and west branch of the Mackenzie—Scanty fuel—A cheerless camp—The Arctic Ocean—A stormy night—First sight of the ships—Sorry plight of the whale-fishers—Short commons—Loan of dogs to the whaling captains.

To save the reader's mind from any misunderstanding, it is better for me to explain, at the outset of this chapter, that the provisions packed upon the two sledges at Fort McPherson were only a part of that supply which I had got together at the cost of a good deal of time and of temper, and which I had bestowed, for the time being, in the Hudson Bay store at the mouth of the Arctic Red River. entire load of these provisions it was now impossible for me to take along; even if we could have got sledges enough to carry all the food I had in store. the dogs and Indians allotted to these sledges would, in this country, have consumed as much as they carried. Consequently, I was forced to dispose in various ways of the bulk of my supplies, keeping little more of them than was needed for the expedition to Herschel Island, where I hoped to be able to replenish my store from the whaling-ships I should find there. Had my sledges, indeed, been equal in capacity to those which are used by the Eskimo, I might have been saved from the need of thus abandoning all my supplies. An Eskimo sledge, being more solid and substantial, can carry nearly three times the weight of which an Indian sledge is capable. Being designed, however, for use upon ice, or else upon hard snow, the Eskimo variety is mounted upon runners, which would speedily sink where the snow was deep and soft. In such places the toboggan sledge, constructed by the Indians, is the only sort which can be drawn. This vehicle, as the name imports, is flat-bottomed, and is turned up at the end. In consequence of being thus curved, it is, when completed, 3 feet shorter than it would otherwise be; for the length of the sledge is not more than 6 feet, whereas each of the planks which are laid side by side to compose it measures, approximately, 9 feet by 1 foot. The whole under-surface of the flat-bottomed species must, it is plain, be exposed to friction; and when the depth and softness of the snow are considerable, the sledge which carries an unusually heavy load will be brought almost to a standstill. In circumstances such as these I had no choice, therefore, but to act as I did, and I made arrangements with Mr. Firth, the chief officer of the Hudson Bay Company at Fort McPherson, that he should take some of the "excess luggage," in the shape of eatables, off my hands, and should give me in exchange an order on a whaling captain; whilst such other part of my stock as had to be abandoned was either sold by me to the traders, or else given away "with (many) a pound of tea," as I did not expect to be returning hither. This course was the only one open to me if I were not to waste a year waiting for the open water, but to make a trip on to the ice, if this were possible, in the near springtime. Everything else, however, such as instruments and the like, which was needed for this projected ice-trip I took with me aboard the sledges, feeling fairly confident of being able to get food-supplies from the whaling captains.

On the morning, then, of February 13, 1906, we started off in a dismal blizzard. My Indians would have had me wait till the next day, and it was even reported to me that one of them had announced his intention of leaving me on the road. Had either or both of them done so, I should not have been surprised, for I had been treated like this before by the Indians. They are wont to behave in this way to white men, and seem to be wholly wanting in the sense of honour. They are as irritating and as scurvy as the unsavoury little beast which lends a nickname for them to the Eskimo-Ekilik descendant of a louse) being a word in use amongst that nation for the Indians, who, in short, are as pitiful a set as the traveller could wish to meet with. Throughout this country it is the custom to pay them in advance; if you are loth to do this, you will probably get no one to go with you. In the present instance I paid them a portion of the money in advance, withholding the rest of the sum until we should arrive at Herschel Island; so unless they had done what I wanted them to do, I would not have





paid them. Even as it was, I consider myself lucky in having got through to Herschel Island without trouble with them; nor will I again pay an Indian any portion of his wage at the outset, but will take

my chance of being obliged to travel alone.

I was determined, therefore, to start, and so we started. Here, if anywhere, I realized that it is le premier pas qui coute-that each fresh obstacle which arose would, if allowed to stand in the way, confirm the Indians in their reluctance to set out; and that, whilst time was precious and each day valuable, one day, nevertheless, was, on the whole, very much like another, and to-morrow might be worse than to-day. Nevertheless, there was no denying that the weather in which we set forth was none of the most cheerful: there was a strong wind, and the mercury stood at 20° below zero, whilst the snow was falling hard. I only wish that it had been lying as it had fallen—hard; but the Peel was covered with a soft, deep carpet, and I walked in front, with my snow-shoes on, to form a trail which should enable the sledges to glide more easily and the dogs to obtain a surer foothold. This trail is made yet firmer when a loaded sledge passes over it, so that the second team of dogs have an easier task than the first. Accordingly, we changed the order of the sledges every day at noon, that which had led the way in the morning taking the second place. The first day we only went 10 miles—just out of sight of the fort. The worst of making the first stage of a journey so short is that some of your dogs will very likely go back during the night unless you tie them up. Throughout the whole of next morning

travelling was again laborious, for the snow was still lying soft on the Peel; but the trail became firmer at noon, when we reached the mouth of that river; and here it was that we saw a wolf on the Mackenzie. He was coming our way, and I went on in the hope of intercepting and shooting him; but he was too wary, and kept well out of range. I fired at him from about 300 yards off, but without hitting him. That day we travelled 20 miles down the Mackenzie before we camped. We never put up a tent-the Indians never do: they always go for protection some distance into the heavy timber which grows on the banks of these rivers. Taking a snow-shoe in their hands, they next proceed to use it as a shovel for clearing away the snow, which they pile in three banks, so as to form three sides of a square or of an oblong. This enclosure, with only the front left open, is the camp, and a very snug camp to boot. A quantity of brush is then cut from the pine-trees, and kindled into a blazing bonfire; and, if you have a fur sleeping-bag, you are soon as warm as a muffin.

On the third day we came to a camp of Eskimo, who seemed to be well provided with rabbits, mountain sheep, and lynx; also with fresh fish, for a small supply of which we bartered a portion of our tea and flour. We camped for the night in this place, and my new neighbours impressed me as being very quiet people when compared with Indians.

Before leaving these Eskimo, I made them a small present, and asked them to give my men, when the latter should be returning, a few fresh fish for the dogs—a favour which was readily promised.

We started off early next morning, keeping quite close to the mountains which bound the west branch of the Mackenzie from the Peel River to the oceana road which it was, of course, easy enough to follow. All you have to do is to "hug" these heights as much as you can, except when a short cut may be made over a prairie flat. At Point Separation (which lies half-way between the Arctic Red River and the Peel, and which is 200 miles by water from the most northerly island — Pullen Island) the Mackenzie begins to widen out into a delta, which, at its broadest, has a span of 45 miles. The west branch of the river—the branch down which we are now travelling-breaks up, at the north-east end of the mountains, into many channels, which have forced their way through a plain that extends from the foot of these uplands to the coast; and between this north-eastern end of the range and Shingle Point—a stretch of 60 miles—there is no wood save a few willows.

We journeyed on for another couple of days in the timber, and as we drew nearer to the end of it the snow became firmer, and the travelling easier in proportion, so that we managed to accomplish about 30 miles on each of these days. Nor were we, on emerging from the timber, wholly at a loss for fuel, for there was no lack of dried willows: with these, during the two days and the intervening night, we had to be content. The real drawback, however, of leaving the wooded country behind, lay in the fact of the Indians being like fish out of water: their resource seemed to have abandoned them, and they had no idea of making a comfortable camp 4-2

in the open ground; whereas the Eskimo, in like circumstances, is never at a loss, but soon puts you where he is himself—thoroughly at ease. Fuel once more becomes abundant when you reach the coast, for the driftwood thereon is plentiful.

Seven days were spent in this manner, and on the evening of the seventh day we came to Shingle Point. Here we found an Eskimo snow-house, inhabited by a man, with his wife and their two children. This man subsequently became well known to me: I found him a fine fellow, and in after-days he never forgot to remind me of this our first meeting. He was living at the time on seal and rotten fish; so I gave him all the tea and deer-meat I could spare, and thereby won his earnest and lasting gratitude. The Arctic Ocean is a bleak-looking place on first appearance, but it improves considerably on acquaintance; and, despite its piercing winds, I would far rather have it than I would the country inland.

At noon on the eighth day we arrived at King Point, where I remained for one day. The next evening we went on to Kay Point, where we camped out on the ice. We had no shelter except our sledges, and, after making a cup of tea, I stretched out my sleeping-bag on the snow-fields of the Arctic Ocean for the first time. Although the snow-mattress was not uncomfortable beneath the sleeping-sack, yet my experience of this first night would not lead me to speak in such glowing terms of my glacial bedstead as Mr. Roker employed for describing the narcotic properties of the one which he let out to Mr. Pickwick. "Poppies is nothing to it, I suppose?" asked Sam Weller dubi-

ously of the turnkey. Perhaps it is unreasonable to expect "poppies" in "the unharvested main." At any rate, to cut the matter short, I was awakened at 2 a.m. by the blast of a strong north-easterly wind, which sent the snow sweeping along the barren waste; and there we lay, sledges and all, buried in a sort of snow-barrow. From time to time I kept picking myself out of the jumble, and peering out to see what prospects there were of starting: we should not, at all events, have a head-wind, for our course lay N.N.W.; but the outlook was nevertheless very grim. There was a great fire-hole in the ground where we had lit our fire overnight with bits of the driftwood which stuck out everywhere through the top of the snow; and now my Indians, covered only by a blanket, could stand the cold no longer, but jumped up, much to my relief, and tried to make a fire in the old fire-hole, which had a lot of water at the bottom. They could not do so, of course, and as it was useless to stand there till we were half frozen, we set out upon our journey again as well as we could. We started off at a run to try to get warm. We could just see the driftwood sticking up through the snow as we went along, and from this sign we knew that we were still close to the shore. I made Quecitchya keep in front of the dogs, while I drove one team and Kenneth Stewart theother: Quecitchya was only able to do so by having hold of a line from the head of the sledge, for the snow was drifting so quickly and so thickly (though the particles were as fine as they were numerous) that it was impossible for either of us to see his own leading dog. Wretchedly cold, and with empty stomachs, we travelled on till 3 p.m., when suddenly through the mist, we saw, to our great joy, the mast of a ship. This was one of the most welcome sights I have ever seen, for it meant that we had at last reached Herschel Island.

I now went to Mr. Whitaker's house. He was the Church of England missionary here, and I intended to ask his hospitality if it were not inconvenient for him to put me up. His wife, however, was ill at the time, so I went over to Captain Tilton's ship, the Alexander. There I met all the whaling captains, who then explained to me their position: there were five ships in all, each carrying fifty men aboard. All five vessels were steam-whalers, and had been spending their third involuntary winter in They were all on their way to San Francisco, and, contrary to their expectations, they had been frozen in this year a month earlier than usual. ships alone out of the five had been provisioned for a third year—the Alexander, to wit, and the Jeannette (of which Captain Newth was in command); but by dividing up these supplies, all five had enough to support their respective crews on half-rations till the end of July. These tidings straightway banished all my hopes of making the ice-journey: from men so straitened in their own means of subsistence it was impossible to ask for two months' provender for ourselves and for our dogs. It appeared, indeed, that the natives were killing plenty of deer in the mountains, but there were few dogs to bring this meat to the ships. The whaling captains were willing to put me up, but in such circumstances I could not bring myself to tax their



CAPTAIN NEWTH OF THE "JEANNETTE."



WHALING CAPTAINS.



hospitality: 250 men were struggling along on half-rations, and I would not step in and make another.

The captains impressed me strongly. They seemed to be men both of robust frame and of manly intelligence. Deliberating how I could effectively requite their proffered kindness, I bethought me of lending them my dogs for bringing deer-meat out of the mountains, into which, moreover, I made up my mind that I would myself go and try to kill deer for the crews. Money would have been of no avail: no amount of it could have bought a single man's half-rations in such a place as the Arctic Ocean. The only thing that the Eskimo, or anyone else, asks up here is, "How much food have you got?" or, "How much food will you be able to get?" A man must find his own "prog" or bring it with him into the country.

With such thoughts as these in my mind, I agreed with Captain Newth to lend him my dogs so long as he wanted, if he would allow me to live on his whaler until the supply ship should come in next July. He explained to me that towards the end of that month the supplies would arrive at Herschel Island from San Francisco, and that he would then sell me two years' provisions. These I agreed to buy from him, and decided to remain in the Arctic for another winter. Meanwhile it may be of interest to know that the six dogs which I lent Captain Newth brought to the ships, in eleven weeks, 16,000 pounds of deer-meat. The dearth was thus, for the time being, at an end. It had, all things considered, troubled me less than had the

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other obstacles which arose from it; for this was not the first time I had been in straits for want of food, and experience had given me confidence in my own ability to keep myself alive on land or water—why not, then, on ice and snow? To be frank, however, I had never before been in a region where hunting is more toilsome and uncertain. It is very hard to get near your quarry below the timber-line, and game was scarcer on the hard snow than I had ever known it to be elsewhere.

CHAPTER IV

IN THE MOUNTAINS

March 5 to May 2, 1906

The drift of the ocean—Walrus and whales—Open water—Dangers of sealing—Reluctance of natives to face the ice—Excelsior—Sledge ascent of a frozen mountain torrent—The blow-hole—Meeting with the aborigenes—A rude feast—Native ingenuity—An enjoyable sojourn—Eskimo travelling in the mountains—Scarcity of game—Hard times—Crossing the heights—More open water—An unexpected paradise—Return to the ships—Toilsome travelling—The cup that cheers—Further upland sledging—In the thick of the deer—The long days—Spring travelling—An arduous route—The mail—The Richardson Range.

During the few days' rest that I was now able to enjoy at Herschel Island, there was ample opportunity for discussing my plans (which certainly could not be carried out this year) with the whaling captains, and for gleaning from them all the information I could, both about the coast and about the history of ice-navigation in these waters. The subject was one about which they were almost as ready to talk as I was eager to listen. They had all been far north of Herschel Island, and had killed whales in 72° North Latitude. Spokesmen of experience as they all were, Captain Murray stood forth, perhaps, as Gerenian Nestor, from amongst them. Fifty years of life on the Arctic waters had

entitled this veteran to be heard with deference, and from his lips I gathered that apparently there are two currents which run, respectively, in a northeasterly and in a north-westerly direction from Point Barrow. The opinion to which he thus gave expression was based on these facts: Two whaling ships had previously been frozen at the same time in the ice off Point Barrow. One of these, which had been abandoned, drifted, first of all, along the coast to the east; then, in the spring of that same year, it changed its course and was carried westward as far as Cape Prince of Wales, Behring Strait. Finally, in the following year, this vessel drifted back to Point Barrow, where it was dismantled and burnt by the Eskimo. The course of the other ship, though unknown, arouses far greater interest, the interest being due precisely to the mystery in which the fate of this whaler and of its inmates has ever since remained enshrouded.

"Fifteen men on the dead man's chest.
Yo ho, ho! and a bottle of rum."

These lines, remembered by every schoolboy, are startlingly near the truth in this case, for the fact is that fifteen men *did* resolutely cleave to the vessel, refusing to forsake it, as there were plentiful provisions on board; and they drifted off in a north-easterly direction, and have never since been heard of.

There is another curious fact about Point Barrow: walrus are killed in large numbers off Wrangell Island, and all along the coast of Siberia; but no walrus are either killed or even sighted east of Point Barrow. The bowhead whale, again, is met with

off the coast of Kamschatka in May and June, and is pursued by the whalers through Behring Strait; but they lose sight of it when it travels northwards into the ice; and it is only when these ships get to the east, off Banks Land, that they once more meet with the whales (which are now returning in a westerly direction), and follow them along the coast, to lose sight of them for a second time, when these mammals are, in September, making for the north-Thereafter no bowhead whales are seen, in this (or in any other) part of the world, until they reappear in the following spring, off the coast of Kamschatka. What becomes of them, therefore, throughout the long period between September and May? The baleen of a full-grown whale will fetch an average price of £2,000, so that were these animals to be found in any quarter of the globe during the winter, they would eagerly be hunted. No creature, indeed, could well be easier to hunt: a prey that measures from 50 to 60 feet in length will not readily be overlooked, when its black bulk comes to the top of the water, and for hours at a time lies thus motionless, in full view; though even if its leviathan form did not loom out for some feet above the water, the whale would yet court attention by coming to the surface to blow. These monsters, in fact, are unable to remain under water for more than twenty minutes at a spell; and the spout of water (or, as some opine, of warm vapour) which they discharge rises many feet into the air. In view, then, of all these considerations, may we suppose that north of the coast of Alaska there must exist (in latitude 72° to 74°) an open water-space wherein the bowhead whale spends the winter? The facts, at any rate, on which I venture to base this conjecture I give on the authority of the whaling captains, whose evidence in such a matter is undoubtedly very valuable. None of Captain Murray's colleagues, to be sure, could have pleaded, like him, the right to celebrate a "golden jubilee"—an eventful half-century of Arctic whaling. Nevertheless, Captain Tilton—himself one of many generations who have spent their lives on these northern waters—could boast of twenty years' experience of the Arctic Ocean: an experience in which Captain Newth only yielded to him by five years.

In a matter, moreover, which related less closely to their calling, the whaling captains were capable of giving me help, of which I gladly availed myself. They acted as interpreters between meand the Eskimo, whom I endeavoured, in these parleys, to persuade to accompany me in the short journeys I contemplated making on to the ice. To this proposal, however, the natives were unwilling to accede. The more they knew about the ice, the more reluctant they were to expose themselves to its perils. One of their number had recently been lost near Herschel Island, when he was killing seals, which they do by going out, sometimes for many miles, to an open-water lane, wherein they either shoot or spear them; but on his return he found that the floe on which he was had broken off, and drifted out to sea, thereby cutting off his retreat; nor was he ever seen or heard of again. This mishap made the natives very chary about going out on to the ice-at any rate, during the present year. But since my own plans could not

be executed till after the expiry of this twelvemonth, I was not very much disheartened by the reluctance of the natives. Two grounds of hope, moreover, still remained to me. In the first place, the Eskimo are anything but craven-spirited. If they shrank from faring any distance afield upon the ice-plains, this was only because of a very natural misgiving lest any such disaster should overtake them as had already befallen their ill-fated comrade. But I have no hesitation in declaring my belief that they would not have recoiled, eventually, from joining me in expeditions of even two or three months' duration. This paradox may readily be explained. Forays, like that which proved fatal to the seal-fisher aforesaid are undertaken precisely because of the res angusta domi. Hence the adventurer rightly shuns these trips when they seem more likely to precipitate than to stave off, the starving death from which he seeks to escape, for even in this frigid clime a man is loth to jump out of the frying-pan into the fire; or, as another adage hath it, better is the devil you know than the devil you don't know; and it were better, if needs be, to starve decently in the bosom of one's family than to famish and starken "in icy isolation" on the unknown bosom of the frozen-hearted ocean. Napoleon I. is said to have fitted up his travelling coach as a library on wheels: the Eskimo, I take it, would not repine at excursions with a sledge that was equipped as a larder on runners.

In the second place, I reflected that I should, in all likelihood, approach the natives more successfully in the matter if I approached them literally in person—if I foregathered with them and mixed up

in their life. The most skilful interpreter, after all, can at best be only an animated telephone—an indispensable appliance if the parties conversing are to remain apart from each other. But what reason was there for my holding myself aloof from the Eskimo, and speaking to them through another man's windpipe? When the talkers are thus sundered, it is impossible for either of them to form any idea of the personal characteristics of the other. No telephone can reveal to us the gestures, expressions, and, above all, the less superficial qualities, whether of mind or of body, all of which, nevertheless, may be of more service in enabling a man to win others to his opinions or to his wishes than the most faultless dialect and the most cunning logic could be if presented merely through an intermediary. Conscious. therefore, though I had reason to be, of my linguistic shortcomings, I decided that these were in themselves an argument for, rather than against, going up into the mountains, and abiding for a while amongst the natives. You cannot learn to swim unless you plunge into the water. What if at first my meagre vocabulary made me feel somewhat out of my depths? I would share in the daily life of this curious and agreeable folk; learn something at once of their tongue and of their manners; let them see that a European was not, perhaps, so helpless a nincompoop as they fancied him; and finally, it might be, succeed in coming to an excellent understanding and in striking a bargain with them. The attempt was worth making. It would be a novel and diverting experience even if I failed in my errand, whilst if, on the other hand, I achieved my purpose, I should

induce some of the Eskimo to return my visit, and should have the pleasure of entertaining them as "travelling guests."

After a few days' rest, therefore, I set off for the mountains. With me came Mr. Arev, the navigator of the Jeannette. He was going to fetch a load of deer-meat from the Eskimo, and together we ascended the Herschel Island River (or, as it is called on the maps, the Clarence River). This is a turbulent mountain torrent which is hidden, but not wholly subdued, by the iron grasp that winter lays upon it, for the fretful rush of the waters can plainly be heard through the solid pavement of ice beneath which they are imprisoned. In times of open water their rage is similarly restrained, without being quelled, by the grim cliffs which on either side rise for some 200 feet above the stream, though in one place at least these barriers tower to five times that height. This spot is called the Blow Hole, for here the gorge through which the wind for ever whistles dismally becomes very narrow, and the wayfarer has consequently to confront the full fury of the pent-up blast. It might be hard to explain why in England we speak of dishes being "piping hot": those who have been through the Blow Hole would not question the fitness of calling the wind, which comes "shrill, chill," through that opening, "piping cold." In the bitterest weather a strong head-wind could hardly be faced there, but what we now had to stem was comparatively a boisterous breezeboisterous enough to twitch the snowy coverlet from the ice, which was left blue and livid in its nakedness, and which was so smooth that the dogs could win

no foothold upon it, so that it was with the utmost toil and trouble that we held our course. It is always thus in the Blow Hole. The snow, which lies thick in other parts of the ravine, can in this spot find no lodgement. Every yard we advanced had stubbornly to be fought for. Dogs and sledges were constantly driven back. My companion began to grumble, and declared that he always had a headwind; and he was puzzled, without being appeared. when I told him he was lucky in not having a fair wind. The force of my remark, and of the fair wind itself, he realized only on his return. When he reached the Blow Hole the sledge, which now carried 900 pounds of deer-meat, was blown with terrific fury against the sheer wall of rock, and smashed into pieces. Three of the dogs were also killed and, had he been on the sledge himself, his own mangled limbs would have been added to this wreckage; but happily the sledge was blown bodily away from him. A sadder and a wiser man, he retraced his steps to the Eskimo camp (of which I was now a contented inmate) to procure a fresh sledge, and to narrate his rueful adventure.

My meeting with the Eskimo impressed me very much. They were camped in four tents on a knoll under a lofty mountain (of which it formed a spur, dividing the east and west branches of the Herschel Island River). These tents commanded for many miles in both directions a view of the stream we had just ascended, as also of a wide portion of the surrounding uplands.

The hawk-eyed natives saw us coming long before we could make out their camp, and accord-

ingly they got ready a goodly feast of fresh deer-meat both for us and for our dogs. The four tents formed a half-moon, the men being seated in one of them and the women in a second. In front of either party rose a vast pile of cooked deer-meat, steaming hot: round this they sat tailor fashion, yet owing little to the tailor's art, for they had nothing on except their deer-skin trousers. In civilized countries a man may surreptitiously loosen his waistband when dining, but if the Arctic aborigines take off their coats before going to work, the heat of the camp would be sufficient excuse, even if the revellers were less vigorous in the onslaught which they make on the reeking hecatomb. In one hand they each held a large knife, in the other a huge chunk of meat, into which they fastened their teeth, cutting off from the lump the piece in which their fangs were imbedded—a piece which was commonly as large as your fist, and which vanished down the "red lane" with the most astounding rapidity. There were eight Eskimo men, each of whom devoured at least three of these joints; and after gobbling up the meat they invariably broke the bone to get at the marrow. My comrade and myself also shared in the feast, and enjoyed it supremely, being ravenously hungry. When the repast was at an end, the Eskimo all bestirred themselves to put up my tent, which I always insisted upon having pitched apart, and which I likewise always made a point of fitting up, before anything else was done, after a journey. The natives reported plenty of deer, of which they had already killed thirty. Their carcasses were assigned to the ships; so next day my companion loaded up

his sledge with meat and turned his face homeward, leaving me alone with these interesting and hospitable folk. I made a practice of visiting one of the Eskimo tents every day (usually in the evening), and spent my time there in learning the name of everything I saw, which I wrote down in an Eskimo vocabulary that had been given to me, when I left England, by Sir Clements Markham. Once, when I entered a tent to pursue these humble linguistic studies, I found a man trying to fit together the seven pieces into which a lamp-glass had been brokenthe lamp having been blown down during the night. A very neat job he made of it, binding the fragments so solidly with sinew that the mended lamp-glass gave an excellent light, and could without trouble be cleaned every day. Could smith or tinker in our own land have done more?

For the first time since leaving England I now had sport, and sport without stint; nor have I ever elsewhere enjoyed such hunting. Each day I went out and shot either deer or ptarmigan. The deer, perhaps, were not very numerous, but all the valleys were alive with ptarmigan. Counting men, women, and children, there were twenty Eskimo in camp, and twenty-one dogs. Large supplies of food, therefore, were constantly needed, and when game grew scarce, we made up our minds to break up camp and to move over the mountains onto the Kay Point River.

Accordingly we started off, with five sledges, up the Herschel Island River, without, however, finding any game on our way; and we were joined at intervals by various other bands of Eskimo whose camps we kept passing, and who were very hard up



AN ESKIMO AND CAMP IN THE MOUNTAINS.



A DEER CAMP IN THE MOUNTAINS.



for food. Thus we grew like a snowball, or, if you will, like the celebrated party which one of the "Three Men in a Boat" undertook to conduct through the Maze at Hampton Court. And after travelling four days, we had not five sledges, but twelve, and as many families. On the fifth day I struck a fresh trail. Travelling with sledges, the Eskimo seldom made more than five miles a day. whereas an able-bodied man, with no such encumbrance, could easily cover twenty; and I always kept well ahead of the sledges in the hopes of finding game. Thus it happened that I was considerably in advance of the caravan at the time I struck the trail, which I promptly followed up, feeling sure it would lead to a camp. This surmise proved correct, but it was not until late in the afternoon that the camp appeared, and in the meantime, as the trail seemed interminable, I was half minded to camp where I stood. On second thoughts, however, I resolved to go on, and soon I heard the welcome barking of dogs. Here there was an Eskimo and his family, and as they could spare from their plenty I had no scruple in settling myself down in such comfortable quarters. It was far on into the next day when my own belated comrades arrived, toil-worn and famished. I felt sorry for them, but even more sorry for my new messmates, for the Eskimo always help themselves freely to whatever a band of their own tribe may possess. We devoured the last three reindeer that were left in this second camp, and the luckless natives whom we despoiled (though they, of course, gladly shared their failing provender with us) henceforth formed part of our

procession. We journeyed on for another two days without killing anything: we had not even so much as a fire, for we were well above the timber-line; but a beggar in rags does not much feel the loss of buttons, and fires, after all, would have been of no great use without something to cook. On the third day we met a sledge that was taking a load of deermeat to the ships. Thereupon my people came to me and asked me if they might each take a piece of deer-meat. This put me in an awkward plight. On the one hand there were the whaling crews waiting for the meat they had bought, on the other some of our dogs and, what was far worse, of the children in imminent danger of starving. Necessity has no laws, and not many courtesies. With the fate of the children trembling in the balance, my doubts soon vanished, and I told the natives they could each take one piece of meat. This left barely enough on the sledge to last those who were driving it till they reached the ships; and I sent a letter by them, in which I explained the situation to Captain Newth. When next I met him he told me I should have taken the whole lot. Helpful as this windfall was, it was soon gone, and we were in for a hard time, for the country we had entered was void of game. We travelled on for another three days without killing a deer. A dozen of us then went out hunting, but each man came back empty-handed except Kokatū, who did not return until long after dark. He had another native with him, and they had killed one deer, which they packed on their backs. Glad we were at the sight, nor did we wait for the meat to be cooked, but sat down and polished off every bit of it. The poor dogs were very bad, but we could

only spare them some of the skin.

We went on like this for another week, during which we only killed two deer: each of these furnished one good meal and no more. We had now been travelling for a fortnight, and several of the dogs had perished of hunger. But at length we came upon a large herd of deer. Every man at once seized his rifle, while the women put up the tents; and two or three of the best hunters climbed to the tops of the highest mountains, whence they soon located the herd of deer. These they surrounded, killing seventeen of them—a mighty stroke of luck, for we were all on our last legs, though, of course, we could have held out for a long time by eating some of our dogs. Travelling day after day, and going out in the morning to the top of a mountain to look for deer, without breaking your fast—these are undeniable hardships; yet all this time, much to my surprise, there was nothing but cheerfulness in the caravan. Whenever we halted the children always put on their fathers' snow-shoes and had races after one another, or climbed some way up the hill-side, and then slid down, tumbling and laughing, one over the other. was never any complaining. Everyone seemed to think the time was not far distant when we were going to kill a number of deer; and when the time did come there was universal junketing—men and women, dogs and children, revelling in marrow and fatness.

"Our veels being thus greased," as Tony Weller would have said, we journeyed on for about 100 miles, going up to the source of the east

branch of the Herschel Island River, then crossing over the mountains and coming down upon the west branch of the Kay Point River. We had lost ten dogs from starvation, and had several times gone for two or three days together without breaking our fast through a country in which none but an Eskimo could travel. Near the height of land we crossed there was a great deal of open water that seemed to have welled up from springs, and as the weather was never less than 20° below zero, progress was hard alike for men and for dogs. Another obstacle was the soft snow in some of the gorges and valleys, where five men were often needed to move a sledge through a bad place. Sometimes we were advancing up a steep incline, at other times descending a gradient. In the latter case we took the dogs out of the sledges, which glided of themselves over the frozen snow, ever and anon careering madly down the sheer slopes, whilst we ourselves, squatting on our snow-shoes, tobogganed merrily after them. Such are the ups and downs of Arctic mountaineering; but taking all in all, we never made more than five miles a day, though we often made much less. This leisurely rate of travelling is what the white man must find most irksome in the Eskimo life. No motorist need apply.

We were now encamped in a beautiful valley, through which sped a mountain torrent, the banks whereof were thickly timbered and yielded us abundant store of excellent fuel. Deer and ptarmigan likewise abounded here, so that after the scarcity of firewood and of viands from which we had suffered the vale was in truth a paradise. Such a spot is like

an oasis in the desert—doubly welcome for being so infrequent. We soon had a large number of deer killed; then someone had to take the news to the whalers, and to bring back (in exchange for good news) tea and tobacco—the only things wanted to complete our enjoyment. I was so happy here that I thought I would linger on until a sledge came from the ships; so I had another delightful week's rest, with plenty to shoot and plenty to eat. I could thoroughly enter into the life of these Eskimo, whose adversity I had shared, and whom I now re-

joiced to see revelling in plenty.

A sledge soon came from the ships to fetch deermeat. We were now 60 miles from Herschel Island, whither I decided to return with the sledge for a few days, and then to make another excursion into a different part of the mountains. It was my former sledging comrade, Mr. Arey, who had again come from the ships, and when he had loaded up his sledge to its utmost capacity with deer-meat, we started from camp, at 5 a.m. on April 11. journey back to Herschel Island was one of the most toilsome that I have ever made, for the success of these expeditions depends on the track. Given that the snow thaws by day and freezes again by night, astounding weights can be brought long distances on a sledge, within a few hours, by two or three dogs. Should the snow, on the other hand, be soft and the ground hilly, it is wellnigh impossible to drag a heavy weight more than a very few miles. We kept our shoulder to the wheel (or, more exactly speaking, to the runner) till 7 p.m., never pausing except for a spell of five minutes every half-hour-a needful

respite for our dogs. We had to cross a mountain, the top of which we did not reach till 3 p.m., the ascent having been continuous ever since we left camp; and many times, as we slowly laboured up this gradual slope, did our heavily loaded sledge break through the flimsy crust of snow, and become so deeply imbedded that we had to lift it, inch by inch, until we could get the dogs to start again. Once, when we could not induce them to move on at all, we gave them a few minutes' rest; and then Mr. Arey, taking a choice saddle of deer-meat out of the sledge, walked on some few hundred yards, put the deer-meat on the snow, and called to the dogs; at the same time, exerting all my strength, I got the sledge in motion. So soon as the dogs saw the meat on the snow, they all pulled might and main to get to it; and then the saddle disappeared—back into the sledge again. But when the crest of the hill had been won, the sledge, instead of being pulled by the dogs, itself began to push them; for it was all we could do to keep it back as it slid down the mountainside.

On the second day we started at 6 a.m., and travelled till 7 p.m., passing over a very flat tableland. At one time during the day we both thought we could descry a sledge and dogs coming towards us, and when we looked through our telescope the impression grew plainer; for there appeared to be a man, ten dogs, and a sledge about a mile away. We hurried on, accordingly, as fast as we could to meet them; but after fifteen minutes of this forced pace we found that what we had been looking at was merely a willow-bush sticking up out of the snow.



VIEW ON THE ATHABASCA RIVER.



It is very curious how you are deceived by the objects you see in this country. On the third morning, at almost the same hour as on the day before, we sallied out, and at 6.30 that night we got to Stoke's Point, which is on the coast, and at which we made a cup of tea and cooked some meat. Our collation dispatched, we started off across the bay for the ships at Herschel Island, arriving there at 10.30 p.m. Our load was weighed in upon our arrival, and turned the scale at 1,300 pounds. We had travelled for fourteen hours on the first day, for thirteen hours on the second, and for seventeen hours and a half on the third; and in these three stages we had traversed the space of 60 miles over very rough ground.

The reader will readily believe that after the hardships which I had undergone in the mountains a brief sojourn among the whaling captains came as a grateful change. They were still battening, to be sure, on half-rations, but the meagre moiety of ship's fare was eked out by abundant deer-meat. My glasses had deceived me by transforming a willowbush into a sledge and dogs; possibly the tall glasses into which I now peered were equally deceptive, for the fluid I seemed to discern in their depths was strangely unlike tea. But perhaps it is indiscreet in me to avow so unworthy a suspicion, so I will draw a prudent curtain over our festivities. talus was punished for bruiting abroad the hospitable secrets of his Olympic entertainers: may I be drawn by wild horses if I utter another word of allusion to the fleeting pleasures of those agreeable evenings.

Five days glided away in this manner all too

quickly. I would fain have tarried longer, but I urgently wanted to meet and know all the Eskimo; and so I started off with a man called Petersen, who was a boat-steerer on board the Alexander, and who had just received orders to go into another part of the mountains in quest of deer-meat. With him, therefore, I left the ships on the morning of April 18, and went across the bay to Kay Point. Here we took the east branch, up which we travelled for three days, at the end of which we came to an Eskimo camp. It was inhabited only by three native families, which were killing plenty of deer, and I decided to remain.

While I was camped here, one of my new allies (an Eskimo called Tūlūgā) came into my tent one morning with tidings that a herd of deer was close at hand. In general I was wont to hunt by myself, but I now readily joined the Eskimo in their foray. We clambered on to some rising ground, and looked at the deer through our telescopes: in a large mountain-bowl, the sides of which rose up and tapered away into craggy peaks, some 200 deer were calmly browsing. The wind was blowing from them to us, so we were able to approach them, and advanced within a mile of them. Ten of us now formed a half-moon across the valley: we were spread out in the hills, which here assumed the shape of a horseshoe, whilst two of our number went round among the heights at the back of the herd, so that the latter might get scent of them. These two natives, moreover, eventually showed themselves in the open behind the deer, which now became thoroughly alarmed, and, being wholly unaware of

our presence, they sought to escape up the hills which formed the horseshoe. Every such attempt, however, was baffled by our fusillade. The Eskimo on my left was the first to open fire on the deer, several of which he killed, while the rest of the herd still endeavoured to break away at successive points along our line. In this manner they ran the gauntlet; and though the main body finally effected their outlet, twenty-two of them remained dead upon the field. This was one out of many enjoyable days which I spent with this band of Eskimo, though for the most part I went out unaccompanied. Day after day I would saunter out among the mountains, on the summit of which I could bask in the glorious sunshine as I scanned the country, through a telescope, for deer. How welcome that sunshine was only those who have battled with the cold winds in those climes, and have emerged, so to speak, from the long, dark tunnel of the winter into the full blaze and splendour of those springtide days can thoroughly realize. The warm beams, however, soon melted the snow upon the southern slopes, and the Kay Point River became a brawling torrent, rushing and roaring and lashing itself in impotent rage against the rocky sides of its narrow channel; and a thousand rills from the surrounding heights poured their tiny volume into the swollen fury of the torrent. I was loth to quit this delightful scene, yet I wanted to get my mail, which would arrive at Herschel Island during the first week in May. On the first day, therefore, of that month, I started back with Petersen and with another native, and we carried a load of deer-meat.

We had now four days of laborious travelling, for the snow was everywhere soft, and there was a quantity of water around, through which we had sometimes to wade up to our waists. We chose the night-time for crossing the bay to the ships, since the frost (which each night brought) made travelling easier. During the early hours of the morning, while as yet we were about five miles from the island, I descried a camp and a number of dogs about 2,000 feet above my head. The camp looked as though it were pitched on the top of a mountain: it seemed, moreover, to be turned upside down, and to protrude above a curtain of cloud which enshrouded the summit, save at the very peak. stopped and looked at the strange appearance with my telescope, but the phantom spectacle was still the same; and after journeying on for half an hour, we came upon an Eskimo camped on the ice-the same apparition which I had beheld inverted, and which had looked as though it were far above me, causing me to crane my neck as I stared upward through my telescope. This Eskimo gave us all the news. He had left Herschel Island the night before, and the mail had not then arrived; so I should be in time to receive and answer my letters, though my answers would not get to England before October or November-and it was now May 4. We got to the ships that morning in time for a good breakfast. Once more I enjoyed the hospitality of the whaling captains, who were just beginning to get ready for spring.

These mountains rise to a height of nearly 3,000 feet, and where the east branch of the Herschel

Island (or Clarence River) takes its rise they are very rough and rugged. There are several rivers which rise in the height of land dividing the Peel River from the coast, and flow directly into the ocean. Firth River is the most westerly, and takes its rise near the demarcation line, thus forming the boundary between Alaska and Canada. The Herschel Island River divides about 60 miles from the coast; while the head-waters of the east branch rise 40 miles south-east of this fork. The Kay Point River rises 70 miles from the coast near the east branch of the Herschel Island River. There is also a river running into the ocean at Shingle Point which rises near the head-waters of the Rat River. This last-named river runs into the west branch of the Mackenzie. The mountains are mostly precipitous to the southeast, while to the north-west the slopes are more gradual. No snow remains on these mountains during the summer months. They have been well prospected from time to time, and are well known to the natives. I do not think that any valuable mineral will be found there.

CHAPTER V

THE ESKIMO AT HOME

Manners and customs of the Eskimo-Kogmolik and Nūnātāmā -A warrior race-Chasing the white whale in kayaks-Fairs at Barter Island—Driftwood dwelling-houses—Subterranean passages—Fish-skin windows—Whale-oil lamps— The iglo and the snow-house—Tools and household crocks —A universal implement—Grease-boxes—Bows and arrows -" The Compleat Angler"-Tooth and gimlet-Wooden shades for snow-blindness—Labrets and tattoo-marks— Old-fashioned surgery—Earrings—Furs and fashions— Treatment of children—Hardihood of the women—Some anecdotes-The Eskimo afloat-Curiosity and the mechanic art — An intrepid seal-fisher — Fish-stagings — Kogmolik villages—Funeral obsequies and superstitions—Principles of nomenclature—Religious observances amongst the Nunātāmā—Native independence—An anecdote—A comparison with the ancient Belgians-Conclusion.

In previous chapters I have more than once avowed my admiration for the Eskimo; to the sterling qualities which compelled this admiration, and to some of the habits, practices, and productions of this people, which in themselves are curious and worthy of note, the present chapter may well be devoted.

The two tribes which I came across were the Kogmolik, or Eastern Eskimo, and the Nūnātāmā,* or

^{*} The Nūnātāmā are the same tribe as the Nūnātāgmūt.

those who live in the mountains. Between these tribes there was a great difference. Both are brave a more fearless folk than the Nūnātāmā I have never come across—but the Kogmolik seem to have been a warlike people who loved to put their prowess for ever to the test. This they did by fighting with the Indians, or else with one another; and the Kogmolik who had the best record for killing his own tribesmen enjoyed the greatest renown amongst those that were yet alive. When chasing the white whale in their kayaks, they often turned the bone of the whale into a bone of contention. Time and place were clearly unfavourable to the discussion of knotty questions as to ownership: the whale was anxious to be off, and its pursuers were perhaps scarcely less impatient. Some rough-and-ready method of cutting these knots was therefore needed, and by tacit consent the conflicting parties betook themselves to arbitration. They had no Fishery Board to which the matter might be referred, but the disputants were all agreed on this sound principle of law—that the whale might fairly be deemed to belong to that man whose claim no rival could be found to challenge. They did not say all this in so many words, being plain, blunt men; but they were unanimous in adopting the procedure here formulated. Dead men tell no tales and dispute no titles to ownership; so when two of the Kogmolik happened to single out the same whale (for these mammals swim in schools) they turned their spears upon one another—a feat which requires no little dexterity in so flimsy a boat as a kayak; and whichever of the twain successfully "spiked" his rival, to

him the spoil was assigned nem. con. Returning from this exhilarating pastime, the victorious hunters must have resembled that Lancastrian football team which won a match by somewhat similar tactics. "We didn't go for t' ball," declared these exultant athletes; "we nobbut [only] went for t' man." To win your whale, your best plan was to kill, not the animal itself, but the competitor who killed it for you.

The Kogmolik are the same race which Sir John Richardson met at Point Encounter (or, to give the native word, Kittigaruit), and which has always inhabited the coast between Barter Island and the Baillie Islands—a tract of country which at all times they have had to themselves. The Nūnātāmā, on the other hand, are of a more roving disposition than the Kogmolik. They came from Kotzebue Sound about the year 1889, when the whalers first visited Herschel Island. The dearth of game in their own country caused these Eskimo likewise to migrate thence, and, being good seamen, many of them were employed by the whale-fishers who were passing eastwards. A further inducement to emigration was the acquaintance which had subsisted from ancient times between the Nūnātāmā and the Kogmolik. Until the year 1889 these tribes used to meet every summer at Barter Island, which derived its name from the purpose of that meeting: for it was here that they chaffered extensively with one another. The Nūnātāmā would bring Russian goods, also wares imported by the whale-fishers from San Francisco, such as knives and guns, and also small seashells. These last came from the Pacific, and were

used for making earrings. The Kogmolik, for their part, vended goods they had bought from the Hudson Bay Company at Fort Anderson (on the Anderson River) and at Fort McPherson; they likewise brought soap-stone, out of which were made lamps and labrets. These yearly fairs, indeed, must have resembled our immemorial village "feasts" (feriæ), in being a curious medley of business and of holidaymaking. To these rude frolics women and children repaired by water in their omiaks, or family boats, while the men, intent on killing game, kept well ahead of them in kayaks. These various craft, however, when their occupants were once landed, played no further parts in the revels; swing-boats and merry-go-rounds have yet to be introduced among the Eskimo. But, whilst differing in detail from its English counterpart, the Arctic fair was conducted in much the same spirit as our own rural festivities. Feats of strength and of agility were doubtless displayed; and it is perhaps not too much to suppose that an occasional cracked skull was the outcome of this boisterous horseplay. There would doubtless have been dancing, and (should spirits have been obtained from the whalers) frequent filling and emptying of the kuleuoruk. For hundreds of years this annual tryst between the tribes had taken place on Barter Island, and had paved the way towards their joint occupation of the Mackenzie Delta, where they now peacefully dwell and intermarry. In consequence of having worked for the whale-fishers, the Nunātāmā are very much better off nowadays than the Kogmolik. I came upon very few Nūnātāmā who had not worked for at least one summer on a whaler; whereas I only met a

single man of the other tribe who had done so. Hence the Kogmolik are very poor, and their pride is the only thing which they can, but will not, put into their pocket. They live the whole year upon fish and deer-meat, and I only knew one of them who had a whale-boat. They have been reduced, not merely to scanty fare, but also to scanty numbers; for though they were originally numerous, there was an outbreak of measles in 1902, which carried off eighty of them, and they now can muster probably not more than a hundred, all told. The Nūnātāmā, however, have double this number, and every family has its own whale-boat. Being thus undermanned, it is hopeless for the Kogmolik to attempt, as they otherwise would, to oust the Nūnātāmā, who deserve to keep their footing, as they seem to be the better tribe in all the peaceful arts, though they show as bold a front as the Kogmolik, and always impressed me as being the most utterly dauntless people I have ever seen—an impression which gained continually in force by what I saw during the eighteen months I spent amongst them.

To say, however, that there is a great disparity between these two branches of the Eskimo is by no means to deny that the inferior tribe are endowed, in a lesser degree, with many of the same qualities which force one to esteem the Nūnātāmā. If I am to speak of the Kogmolik as I found them, I can gladly bear witness to the extraordinary kindness with which I was treated by them.

It was at Tuktuïaktok that I first found their chief Avoyuuk "at home." The framework of his dwelling was wholly wrought of driftwood, and the

beams of which the walls were made did not overlie one another, as in a shack—that is, a log-cabin—but were set up, side by side, on end. It must not be thought, however, that the walls of these houses stand upright: they rise slantwise to the borders of the roof, as if, like so many ladders, they were themselves altogether propped up by it, instead of helping to keep it from falling. What really happens is this: the timbers of the side-walls are mortised and let into the ends of the rafters, and the other two walls lean, in the same way, against the edges of the roof, which itself is yet in part upheld by them. Such is the kind of building most often raised by the Kogmolik, though occasionally they fit uprights into the framework. These are true "beams" in the old meaning of that word—beam in Saxon times being a name for tree. Stripped of bark and branches, these boles keep, nevertheless, their spreading roots, and are put into the ground upside down, one at each corner, so as to look like huge mushrooms, on the heads whereof are laid the ends of four great wooden joists, of four tree-trunks, that make the outer oblong of the roof, which is then decked over with further trunks for rafters. The walls are now reared slantwise, as before: were they upright, the soil, which in either kind of building is shovelled on to them, would be unable to cling to them and to render them air-tight. This earthen covering it is, which makes all these abodes look as if they were largely underground: you would take them for sunken hillocks-the more so when the snow, drifting thickly against them on all sides, causes the slope to merge insensibly into the plain. In reality,

however, the only underground part of the edifice is the passage leading to the entrance. This entrance is nothing but a hole in the floor, and is always closed at night by a piece of wood which is laid across it; remove this covering, and you lower yourself into a curious tunnel, the roof and walls of which are boarded, and which runs outward for about 30 yards. This shaft is oblique: from the moment you step into it out of the house you are always ascending; but you can walk erect until you reach the upper end of the tunnel without endangering your head. This end, indeed, can scarcely be called subterranean, for the outer doorway in which the tunnel terminates is wholly above ground.

Such was the habitation wherein, during the winter of 1906-07, I found Avoyuuk snugly ensconced with thirty natives. Seen from within, the single apartment of which the building consisted was a fairsized hall, some 30 feet by 20. On each side of this hall was a bench, which, raised about two feet above the floor, ran nearly down the whole length of the wall, and was used for sitting on by day, for sleeping on by night. These two benches ended in a platform, or stage, which occupied one end of the room: hereon at meal-times was set the huge bowl of fish or of deer-meat, round which we all squatted, with our legs tucked under us, and helped ourselves. Two more such platforms—one on either side of the house-sometimes replace the benches; in this case each platform recedes into an alcove, and the building thus bears some resemblance in shape to a church with transepts. The stage, or platform, which is open to all the men at meal-times (for the women eat



AN ESKIMO CAMP, SNOW-SHOES, AND SLEDGE.



AVOYUUK CHIEF OF THE KOGMOLIK TRIBE.



off the floor) is reserved at night for the master of the household, whose family and guests likewise repose there. Were the Kogmolik, therefore, an intemperate people, some of them, at any rate, would not have to be carried to bed after their orgies. Far be it from me, indeed, to hint that they are given to such disorderly practices, though, perhaps, at the back of my mind there may be some faint suspicion that their sobriety is due less to their native temperament than to their lack of opportunity. If asked whether they could toss off a full bumper, some of them might haply answer, like the man who was asked whether he could play the violin, "I never tried."

But away with such lurking misgivings, which are an unworthy return for the generous hospitality with which these Eskimo now treated me. They regaled me with the best of their fare, yet I never tasted within their walls any of "those baleful drugs which, being chewed in the mouth, are apt," according to Mr. Stiggins, "to filch away the memory." My recollection of these kindly hosts remains unclouded and grateful. Homer's "blameless Ethiopians" could not have shown themselves either more friendly or more irreproachable. Most literally may the mild carousals of the Kogmolik be said to court the full light of day; for just as the occupants of the house come in and out through the floor, so they admit the daylight through the ceiling. No aperture, no slightest chink or crevice, in the walls gives the least excuse for grumbling about draughts. An Englishman might well find the room stifling, but in that boisterous region there is no need for

opening your coat or your casement to entice the breezes; the great difficulty is to get a brief respite from their visitations. Accordingly, the window (or skylight) is hermetically sealed. It is often a block of ice, which is almost clearer than the cleanest plateglass, and which, notwithstanding the heat within the house, never melts, nor even so much as drips. Sometimes the window is made out of the skin of a fish called loche, and though this medium must needs be less luminous than the crystal plate of ice, the sunlight, nevertheless, pours through it but little dimmed. To the loche-skin, moreover, snow cannot cleave. Nor do the Kogmolik lack means of obtaining light from within the house, for their lamps are as excellent as their windows. These vessels are of the simplest: an oval bowl of soapstone is filled with whale-oil, in which is set a wick of moss. In a house such as I have just described you may often see half a dozen of these lamps burning at once; yet they emit neither smoke nor smell.

Less massive than the driftwood buildings are the dwellings of the Nūnātāmā, who, being a more roving folk, have no use for such durable abodes, but live in *iglos*, or willow tents. The first thing to do in making an *iglo* is to scoop out a cylindrical hole in the snow. The bottom of this hole is the floor of the abode, and the snow which is dug out is thrown up on all sides along the edge of the hole: a low wall is thereby constructed, into the side of which are fixed eight bent willow staves, at equal distances apart. The tip of each stave is then lashed to that of the stave diametrically opposite: four willow

arches are thus formed, which intersect one another in a central point, and constitute the ribs or framework of a dome. Over this skeleton is stretched an outer covering of canvas, the skirts of which are kept fast against the foot of the willow-arches by being buried in the snow wherein the willows are fixed. When the strips of canvas are stitched together to form this canopy, two round flaps are cut out of what is to be the upper part of the dome. Into one of these holes is stitched a sheet of loche-skin, the ice-window being, of course, impracticable; through the other hole projects the funnel of a stove, which is always found in an iglo, and which the Nūnātāmā always themselves make out of sheet-metal. The willow wands—they are about as thick as the rung of a ladder—have already been bent to the needful shape in the previous spring; for no sooner has the snow gone than the Nūnātāmā, while the sap is yet rising, cut the longest wands they can get, strip them of their bark, give them the requisite curve, and leave them thus bent until the sun has thoroughly dried them. A supply of these staves is part of a Nūnātāmā's travelling kit: wherever he goes, he takes them, either in his boat or on his sledge.

The last kind of dwelling which I will try to describe is the snow-house: it is the only one used by the Kogmolik when they are making their less frequent expeditions. It is sometimes, moreover, though rarely, erected also by the Nūnātāmā, who, to be sure, are less adroit than their ruder Eskimo neighbours at building it. The Kogmolik, indeed, however far they lag behind the Nūnātāmā in nearly all the civilized arts, are far ahead of them as architects.

Two Kogmolik will soon raise a fine snow-house in the following manner: Both men start by cutting out blocks of snow, each of which is about 2 cubic feet in size. When enough of these have been obtained, one of the men stands in the middle of the place which the house is to occupy; his comrade, meanwhile, fetches him the blocks to build with. The structure is shaped like a dome; each block, therefore, has to be pared away slantwise on the bottom, and also on the side which it presents to one of the blocks next to it in the same row. The top of the dome is the hardest part to build, yet so unerringly do the Kogmolik perform their task that the house is as tight as a drum, and needs no fire to warm it; a small hole, indeed, has to be pierced in the wall to let out the bodily heat, which would otherwise be unendurable. A thick slab of ice is always used for a window; it is absolutely weatherproof, yet gives, as I have said, a better light than any glass, and never thaws or drips.

Both tribes of Eskimo employ the same tools for house-building. In the winter-time they usually travel with a snow-shovel, an ice-chisel, and a long spoon. The shovel is made out of driftwood to dig the snow, and the chisel is fashioned out of a piece of iron which is sharpened at one end, and which is let into a long haft or stick. This handle is about 8 feet in length, as is also the spoon; and driftwood is used in making both these tools, as in making the shovel. With the chisel the Eskimo chip away the ice to make a hole through which to fish—a device which might seem appropriate rather to the *Chipewayan* Indians; with the spoon they ladle away the splinters. To find the spot where they may do so, they

search for the meeting of two cracks: here the ice can more readily be split.

The same crocks and implements are likewise common to both tribes for household purposes. Amongst these utensils is the familiar tripod, which the aborigines of all countries seem to share with our gipsies. The three sticks composing it are always carried ready for immediate use—tied together, that is to say, at the top. To the string which fastens these sticks, and hangs down between them, are fixed as many hooks, made of willow, as are wanted for hanging kettles upon; two hooks, however, will usually suffice. A large iron kettle, which will hold about 50 pounds of meat, is all that is needed, as a rule, for the cooking; a second kettle is required, of course, in which to make tea, which they always do, even when they do not cook their meat. Their tea supplies are brought either from the whalefishers or from inland traders. A basin, moreover, forms part of their household gear; and, if the reader has not utterly forgotten the account of my journey over the prairie from Edmonton to Athabasca Landing, it will be needless to tell him that my tin basin did not lend itself to more varied domestic uses than does that which is included in the panoply wherewith the Eskimo travels either by sledge or by boat.

Besides the implements that have been mentioned in connection with *iglos* and with snowhouses, the Eskimo have a knife which serves a number of useful and of widely varying purposes. It is at once a hunting-knife and a universal carpenter's tool: they can plane and even cut down a

tree with it. No other instrument is wanted with which to make a grease-box, and for making it so deftly that not a drop of oil can leak out of it. oblong strip of wood is first cut and planed: green pine is most often used. While the wood is still damp and pliant, it is bent into a roll or cylinder, the sides or ends of the strip being tightly fastened together with wooden rivets. Into the roll a round bit of wood is then forced to make the bottom of the box-et voild tout! Out of a tree, again, they can cut a board which they will set themselves to spokeshave, whilst sitting with their legs crossed tailor-fashion. The end of the board is pressed against their stomach, and the knife is gripped by one hand at the haft; by the other, at the point of the blade. When carried as a hunting-knife, it is put in a sheath, and slung horizontally across the stomach instead of dangling vertically at the hips. All the men have, for further weapons, a rifle and a shot-gun, which they can use with great precision—as also, indeed, can their womenkind; whilst the children have each a bow and arrows, which they learn to use almost from their cradle, and with which, accordingly, they become adepts. Nearly all the Eskimo know how to make nets, of which some families will have as many as three. These nets they use mainly in the summer on the coast; though even during the eight months of the year when everything is frozen they spread them under the ice if they happen to be in a fishing district. On these latter occasions, however, they more usually employ a curious home-made tackle, which is nothing else than a bit of walrusivory, quaintly fashioned into the shape of a small

fish. These Arctic anglers often carry their deception so far as tattooing the ivory fish to give it the hues of a fish-skin; nor do they ever fail to put beads into it for eyes. The hook is made of a nail, driven through the head, and sharpened so keenly as to pierce anything. Fumbling with fish in these frozen regions is cruel work for the fingers; sometimes, moreover, the prey-should it be a pike-will use its teeth to vicious purpose; the hooks, in consequence, are never tipped with barbs. The Eskimo hauls out his captive without delay, unhooks it without touching it, and batters it several times on the head with a stick. I gave them several of our English hooks, but they always took off the barb, and generally put the hook in the fire to temper it again. I may add that the indispensable knife suffices almost entirely for the manufacture of this tackle, though the holes, to be sure, have to be drilled with a little auger, which deserves a brief description. A stiff needle is fixed at right angles in a piece of ivory, or of bone, which is held in the teeth. Two slender thongs. wound in opposite directions, are twirled round the needle, which is set in motion with terrific rapidity, and in the twinkling of an eye the hole is pierced.

Talking of eyes reminds me that all these natives are liable to suffer severely from snow-blindness in the spring of the year. To ward off this ailment, they wear a wooden shade for the eyes: this consists of the actual hood, which presses against the forehead just over the eyebrows, and of a shelf which comes just below the eyelids. The shelf is notched for the bridge of the nose to fit into it, as though it were a spectacle-frame, though the contrivance has neither

glasses nor even a separate compartment for each of the eyes. Thongs of raw hide are attached to the shade where it touches either temple, and are passed round the back of the head. The whole is made out of a simple piece of wood, and is another token of the Eskimo's ingenuity with knife and with auger; for it is at once comfortable and effective. By wearing this shade I was henceforth able to stave off the distressing malady from which I had hitherto suffered during previous springs in Northern Canada.

Less useful—and, from our point of view, scarcely more ornamental — are the labrets. These are, in appearance, simply shirt-studs, which are forced through two holes, under the lower lip, one at each corner of the mouth, and which are fashioned of soapstone—a material that can easily be cut into any shape with a knife. The button-holes, so to call them, are made in the under lip when a boy is about fifteen years old. The women, for their part, have, instead of these trinkets, earrings composed of small sea-shells (brought in from the Pacific) and of rows of black or blue beads. The first of these bars-for the beads are so tightly strung together that the row is quite rigid—hangs horizontally from the hook itself; and from this bar, in turn, hang three of the sea-shells perpendicular-wise. From these, again, dangles the second row of beads, to which are attached three shells, as before; and the third of the beaded bars terminates the decoration. In compensation, moreover, for the lack of labrets, the women have three upright lines tattooed above the chin; but I do not remember seeing any of the men

with tattoo-marks upon them, though sundry healedup cuts on their bodies revealed their fondness for bleeding themselves.

Whatever we may think of the labrets, it would be hard to deny the graceful picturesqueness of the earrings. It is their garments, however, which set off the Eskimo to greatest advantage: these fit them perfectly, and are the handiwork of the women. A pair of deer-skin socks is worn inside the boots. The latter reach nearly up to the knee, and in wintertime are made, like the socks, of deer-skin; but in summer the skin either of the white whale or of the seal is used instead—at any rate, by the Kogmolik. So cunningly are these boots sewn that they are quite waterproof; and, after wearing them for a trial, I discarded a pair of fishing-waders which I had brought with me, but which were much less comfortable than the boots. The trousers are likewise cut out of deer-skin, which also affords material for the shirt, when the latter is not fashioned, as sometimes happens, out of sheep-skin. On the men the shirt comes down to the loins; on the women, to the knees; and, instead of being tucked into the trousers. it falls outside them, somewhat like a smock. furnished, moreover, with a hood. Atiki is the Eskimo name for shirt; and over the smock an outer atiki of calico is donned during the winter months-of calico so fine in texture that the snow cannot cling to it; but when they come indoors, the natives always doff the outer tunic-sometimes, indeed, the inner atiki as well. Deer-skin gloves complete the Eskimo raiment. In these the hair is on the inside. next to the wearer's skin, and the same is true, for

the most part, of all the other garments, except when a display of finery is intended. On such occasions these people will trick themselves out in a motley garment—in what we should call a smart frock; for most of them have this pleasing holidaysmock, which, if less many-hued than was the coat of Joseph, is all the more admirable for the gay and tasteful appearance which they are able to impart to it by means of so few colours. These last, to be sure, have various shades, and the strips of deer-skin, which are purposely cut into divers shapes and sizes, are worked into several patterns of exquisite fancy. Inside the atiki a mother carries her baby, and, to prevent the youngster slipping down through it, she fastens the shirt with a girdle of hide. When she has a newly-born babe, she is unwearied in nursing it; she will suckle it, indeed, until it is two years old. The little ones, in fact, are always treated with extraordinary kindness: large quantities of nourishment are perpetually administered to them-literally the fat of the land; for when the men are killing plenty of deer, the children are crammed with marrow and grease from morning till night. This choice nourishment and their warm clothing enable the urchins to play out of door in all weathers; indoors they are generally stark naked.

I remember how once, when we were crossing the mountains, one of the Eskimo, who was called Eiäki, had a heavy load on his sledge; but when his son—a boy of nine years old, who was walking with our party—began to cry, Eiäki at once took and wrapped him up very carefully in deer-skins, and laid him on the sledge, where the boy remained asleep for the

rest of the day. I never saw an Eskimo beat, nor so much as heard him scold, his children; and the best of whatever there was to have these little folks always had. A more striking instance than that of Eiăki comes up in my memory—an incident which I am especially anxious to relate, moreover, by reason of its curious sequel, of which I shall hereafter have to speak. A woman, who, a month afterwards, gave birth to a child, had been walking in front of the dogs for twelve hours in a snow-storm, when her threeyear-old son started crying. Instantly she put the child on her own back, where she carried him for six hours—this after a spell of three days without food. Maternal solicitude enhances in these women powers of endurance which at all times are remarkable. After having journeyed in the snow for eighteen hours, this woman made the camp, and did her share of the work, as though she had all day long done nothing and eaten plenty.

Of the Eskimo sledges I have already spoken, in contrasting them with those of the Indians;* let me now say a few words about their boats. None of these is made, as is the Indian canoe, out of birchbark, and I remember how several times, when we chanced to come upon one of these last-named craft, the Eskimo examined it with the minutest curiosity in order to find out every slightest detail of its structure. With the same close and earnest attention one of these natives, on another occasion, overhauled my "Primus" stove—an apparatus which was, of course, unique in his experience—and actually taught himself, after some hours of this careful study, the

^{*} See p. 25, Chapter III. in init.

whole secret of its working. This, however, is by the way: it is of their boats, not of their curiosity, that I want to speak. Skin, either of the seal or of the white whale, is the substance out of which the kayaks and omiaks are chiefly made, though willows, or else the ribs of the whale, furnish the frame. other kinds of boat—the $\bar{o}miak$ -puk and the $\bar{o}me\bar{u}rak$ —are built of wood, and are brought for them from San Francisco by the whale-fishers. All these names call for explanation. The omiak is capable of carrying about ten persons. Formerly, amongst the Nūnātāmā, as even now amongst the Kogmolik, this was the family boat, and all the household would embark in it when shifting their camps. indispensable, therefore, it was to the household, it is clear that no such feats of seamanship could have been achieved in it as in the kayak. The latter (which, like the omiak, is paddled) is by far the lightest and frailest of all these craft. It is not unlike a Rob Roy canoe, though the latter could never face the heavy seas which the Eskimo think nothing of braving in their kayaks. Once, at Herschel Island, when a gale of wind was blowing and a high sea running, I saw a Nūnātāmā sitting broadside-on in the break of the rollers, while he was waiting for a seal which kept appearing close to shore. The speed of these canoes is as remarkable as their power of resistance. In the spring of 1907 a Nūnātāmā came to my camp on the Mackenzie River from another camp which was twenty miles away. The stream was then running against him at five miles an hour, and was charged with large fragments of drifting ice: to bring up against any of these masses would have been fatal:

nevertheless, he accomplished the distance in five hours.

Next, as to the larger vessels. Nowadays nearly every Nūnātāmā family owns an omeūrak, or whaleboat, which has latterly nearly ousted the omiak from amongst them. It is a sailing-boat with a centre board, and is, I should judge, nearly 20 feet long; it is bought, moreover, at no small price from the whale-fishers, who themselves carry six of such boats on every whale-ship, since without them they could never kill or even approach their quarry. the Eskimo themselves these omeūraks were likewise carried on davits aboard the only proper ship which I have known them to possess. This vessel was owned by several families, and was wrecked after I had left Shingle Point in 1907. They called it an omiak-puk, the second half of this word being an adjective meaning great (as in iglo-puk, which is a white man's house, or one with several rooms). There can, of course, be no need for me to say more about the ōmiak-puk, but I may add that the ōmeūrak is exquisitely built of double-plated cedar-wood—a fact which explains both its costliness and the superb qualities attributed to it by the whale-fishers as a sailing-craft.

Although the Kogmolik have only one or two whale-boats, they are more emphatically a race of fishers and fish-hunters than are the Nūnātāmā. This might be expected, since they live on the coast, and depend more largely for their livelihood on the fish there obtained than on the deer, of which they go less frequently in pursuit amongst the mountains than do the Nūnātāmā. Allusion has already been

made at the beginning of this chapter to the chasing of white whales in kayaks—a combined sport and industry of which the Kogmolik still have practically a monopoly; for the white whales come in among the islands of the Mackenzie, which are the huntingground solely of the Kogmolik. When the whitefish and inconnu begin to run, both tribes put down their nets in the Mackenzie and catch large numbers of them, just as the Indians do at the Arctic Red River.* These fish are then dried, and stored on stagings for the winter. The construction of the stagings is no light task, nor is it worth undertaking to men whose residence in the neighbourhood is as · brief as that of the Nūnātāmā. It is in those parts, therefore, where the Kogmolik are thickly clustered, that fish-stagings might be expected to abound; nor is the expectation, in fact, unwarranted, for after emerging from the east branch of the Mackenzie River, you find these erections in great numbers as you travel eastward. Kittigaruit, Kangianik, Tuktuïaktok, Imnāluk, Nūvūk, and Nūvūktok-these are the only places east of the Mackenzie Delta which are inhabited, along the coast, by the Kogmolik, and at each of these spots the fish-stagings form prominent landmarks: the villages might, in fact, be thought to consist of nothing else, owing to the submerged appearance of the mound-like houses. The staging is built with uprights; these are arranged at intervals of about 8 feet along two parallel rows, and are nothing else than the "mushrooms," or boles set into the ground with their roots uppermost, which I have spoken of in this chapter as

^{*} See p. 17, Chapter II.

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being sometimes used in the driftwood dwelling-houses. In every staging some of these stobs, or uprights, are notched to serve as a ladder, and beams are loosely piled on top, lying side by side, so as to touch one another, across the whole breadth of the roof (or, more properly speaking, of the actual staging itself), which, when finished, is about 60 feet long and about 12 feet wide, and is raised, it may be, some 8 feet from the ground. Piled upon this platform, the fish are safe from the dogs, which would otherwise make short work of them.

The Eskimo place their dead on top of the ground, which, indeed, is the most natural thing to do when the earth is so stubbornly frozen, unless they are to break it with their ice-chisels, or to thaw it, as did the Indians at Fort McPherson. Alongside the dead man is buried all his worldly gear-a custom like that which obtained of old amongst pagan European nations—and driftwood is then heaped up into a sort of cairn or barrow over the corpse and over the clothes, sledge, and other belongings of the deceased. I speak, to be sure, without ever having actually witnessed an Eskimo funeral: the natives amongst whom I tarried seemed all destined to make old bones. Had any of them died, however, I should have been curious to see them laid to rest, though, luckily for them and for me, no one did so. I say luckily for me, since my presence might have been associated in some ill-omened way with their departure. For they are not without their superstitions, though, to be sure, it would be logical enough for them to suppose that the avenues to death are opened up to them by the white man who brought

them, amongst other trifles, the insignificant measlesspots, which—for little things go a long way—spread amongst them like a charge of shot, and carried off eighty of them. That they really are superstitious, however, is shown by the following incident: I was hard up on one occasion for wood to build a fire. Without thinking, I took from a funeral pile hard by a few pieces of driftwood, which I kindled into a blaze, and put my kettle on to it. Shortly afterwards an Eskimo woman of our party brought her own kettle along, and set it over the fire; but, upon reflection, she noticed where the wood had come from, and, snatching her kettle, she ran away with it, as if to avoid some danger or contamination. Upon reflection, I, in turn, am inclined to think that superstition is a harsh word for an act which might well have been prompted by feelings of reverence for the dead. Which of us would care to remove a sod from a grave?

Ancestor-worship would seem to be rife among the Kogmolik, who call upon their forefathers to help them in obtaining food in times of scarcity.

Two instances of this readily occur to my mind. One night, when I was staying with Avoyuuk, he started up in bed, and, through the darkness and hush—for they hung upon his words—he gave an animated account of how their forbears had chased the whale round the delta of the Mackenzie. No slightest detail did he pass over that could heighten the description; or, if he did make some blunder in his narrative, he was straightway corrected by some voice through the dark: the whole setting of the story had clearly become crystallized. Nowadays,

he pointed out, the whale was scarce, but the white man who had made it so had brought flour with him into these regions; and Avoyuuk prayed his ancestors to help them to cheapen this flour for which they were shortly going to bargain at Herschel Island. Another night—this time in a camp—it was the dwindling herds of deer that were bewailed by a Kogmolik woman after a long spell of famine. The men had seen signs of deer, and were going out next day to hunt them—a foray the success of which she commended to the bygone mighty hunters of their tribe who had killed deer so abundantly in this hunger-stricken district. The worship of ancestors reminds me of another practice which, viewed superficially, might seem to have something in common with it. Both customs reveal a lurking belief that the tribe may profit for all time by the worthy deeds of its departed heroes. It is, perhaps, not extravagant to suppose that such a belief impels the Kogmolik to call a newly-born child by the name most recently vacated, so to speak—by the name, that is, of the tribesman who has most lately died, and into whose shoes, in a certain sense, the youngster may hope to step, treading in the dead man's footsteps, and emulating his prowess. I offer the conjecture for what it may be worth.

The Nūnātāmā act upon another principle in bestowing their names, which are mostly taken from familiar objects that surround and enter into their life. How my man Kokatū came by so resplendent and tropical a title baffles my wildest guesses—unless, indeed, a certain perkiness in his personality induced the whale-fishers to fit this nickname upon him. In

other cases, however, there is no such difficulty in recognizing the adjacent sources—local birds or beasts, or else the household implements-from which the name took its rise. The reader has not long since heard of Eiăki—to wit, the oil-dripper. I should have explained that the heat of the lamp continually melts a piece of blubber hanging above it, which slowly drips into the cruse and renews the supply of oil in which the wick is set. $T\bar{u}l\bar{u}g\bar{a}$ means a crow, and in our party there was a man called Tūlūgā. The Nūnātāmā have no superstitions that are known to me, and they seem to have imbibed some ideas of Christianity, as they always observed the Sunday, when they were with me, by singing hymns and abstaining from all work that was not necessary. I do not remember, on the other hand, meeting any Kogmolik who were Christians.

Throughout this chapter it has been my earnest endeavour to set forth those facts that came under my own observations. From the impressions herein recorded it should not be a difficult task for the reader to deduce some outstanding features discernible in one of the tribes, or in both. A few parting words, however, may render it still easier for him to form an estimate.

The most salient feature, probably, in all the Eskimo is their independence—a quality which is partly the consequence, but partly also, perhaps, the cause, of their being eminently self-supporting. Their wants, being few and simple, are readily satisfied by what the country produces, and their own inborn resources are far greater than those of the country. Their versatility is amazing; their capacity for hard

work and for endurance is unrivalled. Dearly as they love "a deal"—and their favourite amusement is to chaffer with one another for a dog or for a rifle— Production is immensely more important in their economics than is Exchange. In their ideal, a man should be competent to support, not only himself, but also his family. A modern Englishman recoils from the name "liar," as his Saxon sires shrank from the slur of nidering; but no reproach can blight an Eskimo more witheringly than the taunt of neglecting wife and children; and if the Eskimo have not emerged from tribal into strictly national existence, neither, for that very reason, have they relaxed those ties of closest kindred which are too apt to be loosened or supplanted in the larger mechanism of a civilized State. The family is their social unit.

These remarks apply in some measure to both tribes, but especially to the Nūnātāmā, beside whom the Kogmolik appear somewhat lazy, as, to tell the truth, they are also somewhat squalid. Contact with the whale-fishers has lessened in the Nūnātāmā. any such distrust of the white man as may still remain in the Kogmolik. Nevertheless, I have myself been put into a plight through inability to persuade a Nūnātāmā to work for me. In the winter of 1907 this man wanted to go to the coast, some 60 miles away, but had no dogs. Now, it so happened that I was eager to get a load of whale-blubber from the coast; so I told Kokatū to make an arrangement with him: Kokatū would lend him six dogs to take his things to the coast, and in return the man would bring back the whale-blubber, walking back again to the coast by himself, as he

would now have nothing to carry. This was all arranged; unluckily, however, the Nunātāmā, the night before he was to start, came into my camp, and I thanked him for what he was doing for me. But no sooner had he found out for whom he was doing it than he at once declared: "I have never yet worked for a white man, and I will not begin now." So he dragged his sledge to the coast without any dogs. This case, nevertheless, was, I think, exceptional; and the Nūnātāmā have found it to their profit to work cheerfully for the whale-fishers, but the Kogmolik mainly subsist upon the proceeds of their own hunting and fishing. It is quite possible that in refraining from extensive dealings with foreign traders they have kept their original hardihood largely undiminished. With them it may well be as with the ancient Belgians, in whom so shrewd a judge, whilst yet so keen an Imperialist, as Julius Cæsar ascribed the preservation of their robust temperament to the fact of their being farthest withdrawn from the influence of Roman civilization, and from the demoralizing effects of intercourse with itinerant traders. To such dealings the Kogmolik are -luckily, perhaps, for themselves-disinclined; and it might be supposed, therefore, that the white man, having literally "no business" in their country, cannot expect a very friendly "admittance" into it. Yet if their greeting of him is not wholly cordial, the lack of cordiality is not due to the reason supposed. Nor yet need we argue that they look still more askance upon those strangers who do not come among them in the avowed character of merchants-if any native race, indeed, in any quarter of the globe can

attribute the presence of white men to motives other than mercantile. In other words, the Kogmolik does not take it for granted that the Europeans who visited him can only be Paul Prys if they are not traders. Barbarous peoples, to be sure, are said to be quick enough at resenting such curious intrusion, even as our own rural countrymen look shyly at the tourist with the check knickerbockers and the camera; or as the owner of the cab-horse which "lived at Pentonwill when he was at home "waxed wroth at sight of Mr. Pickwick's note-book. If anything, however, your Eskimo courts attention rather than shuns it: I never found him, at any rate, other than delighted to have his photograph taken. What seems to me the real reason that he has against receiving white men into his country is the selfsame reason which induces many of us at home to call out against the "dumping" of "undesirable aliens." The educated traveller, however highly specialized may be his faculties, has for that very reason less wide a field for their exercise: he cannot make himself jack-of-alltrades, nor rise to emergencies. At best he can but give to others things they do not particularly want from him, in return for doing things they want particularly not to do for him. To keep himself and his family is work enough for any Eskimo: indeed, the task of getting a livelihood in that country is sufficiently arduous; and if a man has a right to live there, he has in that case the duty of keeping himself alive by his own hands. In their dealings with one another the severity of this code is somewhat softened: when several families are camped together everything that is killed is eaten in common, and the

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man who kills ten deer gets neither more nor choicer meat than the man who kills one. Travelling from camp to camp, they enter and partake of whatever the stranger may have, helping themselves as if it belonged to them—a proceeding which perhaps comes nearer to our British notion of "lordly independence" than does that self-reliance which is nowhere more conspicuous than amongst men who kill everything they eat, and who make everything they either wear or use, excepting only their calico smocks, their guns, and their ammunition.

CHAPTER VI

AN ARCTIC SUMMER

May 2 to July 10, 1906

Snug winter-quarters—Spring-cleaning on board the whalers—Surveying under difficulties—Harbingers of spring—Whaling crews ashore—Preparing for sea—Driftwood—Games and amusements—The graveyard—The drifting ice—Departure to a fish-camp—Back to the ships.

WITH the dawn of May in England spring seems to merge into summer; but here in the Arctic Ocean we were still in winter-quarters, nor should we be able to quit them before the end of July. From May to July, in fact, always seems to me the longest part of the winter in these regions. When I got back to Herschel Island in May, I knew there were two good months during which the ships would be ice-bound; but Pauline Cove, where they winter, provides snug quarters, being a harbour which is protected both from the movement of the ice and from the north Either side of this haven has a lovely southern aspect, commanding a view of the moun-This, indeed, is the first trustworthy harbour which you reach after coming through Behring Strait. Passing thence to the East, you will find safe anchorage at Baillie Island; but the only other place along this coastline of 500 miles in length where a ship will be secure is Tuktuïaktok. At this place there is a harbour, where Captain MacKenna wintered in 1906-07, and he has marked the spot by a wooden cross opposite the island. Between that island and the mainland there are 8 fathoms of water. The channel into this harbour is from Toker Point, and is, I hear, difficult to navigate.

I had fully intended to stay at Herschel Island until we put to sea; but I now half regretted this resolution, for I dreaded the long wait. In reality, however, these two months turned out to be extremely pleasant. It should, perhaps, be pointed out that whale-fishers are among the most scrupulously clean of sailors, as well as amongst the busiest. Never were decks more relentlessly swabbed and scoured, nor brass fittings burnished to a more lustrous polish. It might be thought impossible for men whose business it is to extract blubber to be anything but oily, yet I saw nothing oleaginous about them except elbow-grease, the effects of which were everywhere perceptible. Nor was I myself idle. I made a map of Herschel Island by triangulation. When I started upon this work, I understood that I could have as many men to help me as I wanted; but, as May advanced, there were so many things for the whaling crews to get ready before going to sea that I found it hard to secure even two men during the day, so I had to continue my work without much help. Now, to triangulate by one's self, even over so small an area as one that is only 10 miles square, may yet, on occasion, be a very laborious task, especially when, as was now the case, the ground was very hilly; but my undertaking was checkered

with so many pleasing diversions that I was little disposed to complain. Hitherto, during the winter months, everything had seemed motionless, except the heavenly bodies; and our spirits, like the land, had been crushed beneath the marble monotony. But now at length there was change and animation. Like the Sleeping Beauty in the fairy-tale, Nature that comely dame who carries her age so wellappeared to be recovering as from a cataleptic trance. One by one her paralyzed activities were being rescued from the icy grip which had so long benumbed them. Life was no more at a standstill, and the spotless counterpane of snow was at last being withdrawn from the face of the awakened earth, which blushed scarlet with innumerable blossoms. hues likewise mingled with these rosy tints to make a gorgeous symphony of colour. Saxifrages and white anemones declared their unsuspected presence; rich yellow growths, which sprang up in tangled clusters, and produced an effect which we can attain only by carpet bedding, contributed, together with countless mosses and lichens, to the dazzling medley. In this frigid clime, to be sure, the season of vegetation is less effusive than in that favoured Sabine domain

"Where Jove the sway of spring extends.
Its rigours here the frost unbends,
And kindly Aulon grapes produces
Which scarce need grudge Falernian juices."

Our spring, as already has been noted, was far from long; nor assuredly could the winter months which it ousted be described as other than rigorous; whilst the many wild foxes that prowl about this

Northern wilderness would doubtless find the grapes particularly sour as being so far removed beyond their reach. Dwarf juniper, for aught I know to the contrary, may perhaps furnish some rudimentary kind of gin; otherwise, unless cranberries and blueberries can be made to yield a vintage, the country grows nothing which could gladden the heart of a jolly Bacchanalian. By contrast, however, with the long rigour from which we were now escaping, the gifts and glories of summer, short though they fall of that Ausonian bounty which held Horace enraptured, make the forlorn wanderer more grateful for the cheery, if short-lived, season than he has ever felt for the regular return of the warm weather grata vice veris et Favoni—in his own not too sunny island.

Looking back at this period, I regret not having made more of my opportunities by collecting botanical specimens. I had, indeed, resolved to gather flowers and mosses to send home to a friend who is learned in such lore; but when, if ever, would they reach him? A readier zest was kindled in me by what the aborigines in one of our own northern counties sometimes call bird-egging. The schoolboy instincts, which had been nurtured in that same county, broke forth after having for long years lain dormant; and the larder, if not the museum, profited somewhat by this renewed indulgence in a natural taste for bird's-nesting. The Arctic owl, which, so to speak, must be able to see by day if it is to hunt by (luminous) night, makes its home on the top of knolls; and the mosquito-hawk, which darts and swerves through the air with a curious whoop-whoop



WOLVERINE ROCK, MACKENZIE RIVER.



CATHOLIC MISSION, ON LESSER SLAVE LAKE.



of its angular wings, lays its eggs on the ground. All the birds, in fact, that frequent these Northern lands have little choice of building there in less exposed Even the numerous hawks which resort positions. to the cliffs construct their nests, not in the side of the bleak scarp, but on the flat ground at the summit. I never found a seagull's nest myself, but I believe it lays its eggs on the sand-spits and shingle beaches. Here the water is shallow and warm, and the gulls are in readiness to pounce upon the fish which feed among the shallows. Of aquatic birds, indeed, there is a fair number, and towards the end of May "the myriad shriek of wheeling ocean fowl "* begins to be heard, the clamour being increased by the boisterous brooks which, freed from their winter bondage, come dashing down the hill-sides, helter-skelter, like a pack of urchins hurrying out of school. What a blissful holiday, to be sure, school-children could here enjoya holiday that never had an evening! But the birds, who are wiser in their generation, know that too much of a good thing is bad. Through the livelong hours they have been pouring out their full-throated carol, and they decline to turn night into day. It is all very well for the sun to do this—he has a monopoly in light; but they cannot afford to burn the candle at both ends. Even the flowers in some mysterious way are affected by the approach of what should be night; for they shut out the daylight and tuck themselves comfortably up in their petals. They, too, have work before them that requires rest. Like the birds, they have to transmit, before they lose it, the life which, year after year, brings a brief spell of

^{*} Tennyson's "Enoch Arden."

gladness upon the land, and cheers the jaded traveller into whose soul the iron of winter has so deeply entered.

This revival of activity extended, as I have shown, to the whale-fishers. Two hundred and fifty of them were all hard at work, making ready for the cruise through the ice after whales, and for the subsequent lengthy journey from 70° North Latitude to San Francisco. The first hint which they gave of approaching summer was by removing from the ships what is called, if I remember right, a deckhouse—a screen or palisade of matchboarding which is roofed over, and is fastened to the gunwale all round the ship. This and other tasks yielded full employment to all the men, whose time was occupied from 8 a.m. till 10 p.m. Every ship carried whale-boats, which had to be scraped and painted; then, again, all the whalebone -i.e., the baleen-had to be washed and dried, and put up in bundles. The entire whaling-gear had to be overhauled, and repaired in any part that was found weak; ropes and yards, also, had to be inspected and, in many cases, renewed; and harpoons had to be sharpened, bomb-guns to be cleaned and oiled, and the vessels themselves to be painted. the rigging of every ship fox-skins were now hung up, as also bear-skins and many handsome furs of animals which had been trapped by the Eskimo. this way hides are aired before being packed up for the voyage. Few of the ships, moreover, had any fuel, and a large gang of men had to be sent off to the coast to cut cords of wood for the whaling-cruise. It may here be pointed out that the shore of the Arctic Ocean, from Herschel Island to Cape Brown,

is piled up many feet high with driftwood which has floated down the Mackenzie River. Whole trees, bared of their bark and branches, but otherwise intact as when they stood in their native forest, lie spread, root and bole, along this shore. Some of them measure 100 feet in length, and trunks which are long enough for spars or masts are plentifully strewn around. There are likewise many knotty pieces, which the whale-fishers convert into useful furniture, and which, when polished, are even more glossy and handsome than our pollard oak.

All these preparations transformed what had erstwhile been a scene of dreary desolation into one of brisk but light-hearted industry. Shouts of merriment mingled with the din of hammers and of axes. Prospects were cheerfully discussed, and plans freely mooted, by the denizens of this hard-working colony, who, after three winters in the ice, were brimful of projects as to what they would do when they found themselves once more at home in the sunny clime of California. Twice a week they kept half-holiday in the afternoon. Some roamed over the island in quest of flowers and of birds' eggs; others went off with guns in pursuit of wild-fowl; whilst those that remained contested the honour of their respective ships in a game of baseball. In the evening, once a week, we had a concert, and throughout the year, let me add, there were chess and card games every night in the week, both for the captains and for the men.

The ice-bound mariner, therefore, lives a life that is devoid neither of incident nor of pastime. Ever and anon the incident assumes a more sombre complexion, and takes on dimensions which are nothing less than tragic. At the time of year of which I have been speaking a patch of ground which has hitherto been veiled by virginal snows is now for the first time laid bare to view. It is literally a whited sepulchre; for when the snow has receded, monuments of wood are seen to uprise over graves that are full of the bones of dead men, whom Abstulit atra dies, et funere mersit acerbo-men whose end has not seldom been one of violence. It is sad enough that death should have come upon them so far from home and kindred; sadder still that it should have seized upon its victims in such untoward form. We know, indeed, where each man lies; but of the manner of his fate, and sometimes even, it may be, of the identity of the man himself, the inscription on the wooden slab tells us nothing. Many of these men have shipped themselves under an assumed name. Hard by this cemetery is the Huskie graveyard, to which I have referred in the preceding chapter.

Lanes during May begin to open out in the ice, which is for ever moving with the wind. Sometimes in this month there is nothing in sight but open water; at other times nothing but ice. This goes on until August, when open water can be relied upon for at least two months. On my arrival at Herschel Island on February 24, I found, when standing on the highest point of the Island, that the latter was encompassed with ice, the breadth of this belt extending so far as the eye could pierce; but there was a deep open-water sky on the horizon. During the five days I spent on the ships from April 13 to April 18

the ice-pack, scarred by many lanes and honeycombed with extensive pools of open water, was drifting westward on the north side of the Island. In the mountains, again, I often stood upon the highest points, but could never descry anything except an open-water sky to sea. On May 5 I went out upon the ice some five miles in a northerly direction. Large pieces of old ice were here intermingled with the floe. I did not measure these pieces, but they seemed to me to be about ten feet high. The ice was then drifting slowly to the west. On May 9 it was moving more rapidly in the same direction, and there was more open water in sight. On May 16 I again went out on to the ice. It was now being carried eastward, whither it continued to move until May 23; but on the next day it was almost stationary. Several days of fog ensued, and on May 30 the motion of the ice was reversed; a great quantity, moreover, of open water was visible. I went out from the Island for a mile, and found that the snow on the surface had become so soft that I could hardly walk. During June the conditions of the ice changed very rapidly around Herschel Island. Thus, on the 16th there was nothing but closely packed masses to be seen; whereas on the 18th not a single fragment met the eye from about two miles north of the Island right up to the horizon. The ice seemed to be driven helplessly before the wind. With a north-east wind blowing you may look for open water, for the ice is then borne down through Behring Strait into the Pacific; but the north-west wind blocks up this Strait, and while it blows there is generally plenty of ice along the coast.

On May 31 we shot our first geese of the year, and on June 4 the first fish of the season at Herschel Island were caught, not far from the sand-spit which forms Pauline Cove. They were caught on hooks through a crack in the ice. Henceforth fishing and sealing became the chief amusement of the natives, who began to flock into the Island from the mountains. They had kept the ships in deer-meat throughout the winter, and continued now to keep them in seals and fish.

On June 16 I left the ships, and set off for the south-west sand-spit. I took with me a native named Kokatū and his family. We crossed the bay, but the ice was very bad for travelling, and we were considerably delayed by the open-water lanes which opened out on all sides. I camped on the southwest sand-spit for two weeks to map that side of the Island, and during my stay there we caught all the fish we needed—mostly small salmon, weighing a pound, and also salmon-trout. Wild-fowl, too, were abundant, so we had rather a festive time until the end of the month. Taken as a whole, indeed, my stay at Herschel Island had been neither uneventful nor unpleasant. I had become personally acquainted with many of the whale-fishers, had received ungrudging hospitality from the captains, and had obtained some inkling of the life of whaling-crews in these waters. With most of the natives, moreover, who inhabit this coast I had likewise become familiar, and had picked up a good number of Eskimo idioms, as also-which was yet more important-a knowledge of the ways and of the temper of this folk. My mutual relations with the natives, in a word,

had been sufficiently intimate to enable me to communicate to them some of my own zeal for my pet project of going to Banks Land, whither they were eager to accompany me if only I could keep them in food, should there be a dearth of that game which I confidently hoped to find. Hence, though I cannot pretend that I "regained my freedom with a sigh," the retrospect was, on the whole, not unsatisfactory; for the term of my imprisonment had been usefully filled and pleasantly diversified. In no unkindly spirit, therefore, was I now about to depart from this Island, prompt though my departure was to be; for the whalers would seize the first opportunity that offered for weighing anchor; so I was anxious to lose no time in rejoining them.

CHAPTER VII

VOYAGE TO BANKS LAND

July 10 to August 14, 1906

The departure—Through the floe-ice—King Point—Wooding up—The Arctic coast west of the Mackenzie Delta—An alluvial archipelago—Pelly Island—Finding coal—Altitude of the midnight sun—Ice battles—Losing an anchor—Driftwood—The main channel of the Mackenzie—Work to be done—The Mackenzie Delta—Richard Island—Dangers of ice-navigation—Ships at the Baillie Islands—No prospects of supplies—In durance vile—Attempt to force a passage—Loss of a propeller—Surface currents—Banks Land—Absence of driftwood—An exceptional season—Description of a whale-hunt—Wintering at Victoria Land—Loss of four men—Back to Herschel Island.

WE weighed anchor at Herschel Island on July 10. Our prospects of getting to King Point were not very hopeful, for there was nothing but ice in sight; but the floe was all broken up in small drifting pieces. These did not dismay the whale-fishers, who put their helm to this shattered floe; and, by constantly charging against the loose ice, we made some headway, leaving large lanes of water in our wake. We had only 15 miles to accomplish, but it took us twelve hours to do so. We were steaming hard all the time, and often reversing our engines to get up greater momentum with which to run against the

ice. That night at twelve o'clock we were in sight of King Point. Since a lot of old ice, however, lay aground, two miles off shore, we could not come near the land; but, steaming along the edge of this barrier, we eventually found, opposite Sabine Point, a lane of open water quite close to shore with a depth of 4 fathoms. We steamed up this lane to King Point.

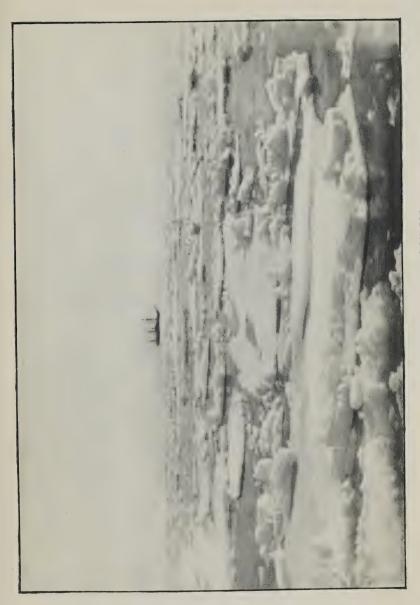
After a few hours' delay we started putting this wood on board. Every piece of it had been cut just the length of the furnace. I do not know how many whale-boatloads we brought off shore, but every available space both below and above deck was piled up many feet high with it, so that one could not walk about. The only place free from encumbrance was the crow's-nest, and to clamber into this was a work of art. The men who had been cutting up the wood seemed glad to see the ships, having for some time past been very short of food. They had been living on fish, and had, moreover, been tormented to death by mosquitoes. All my dogs and sledges—in fact, all my belongings—were aboard, for I hoped to be set ashore on Banks Land, the more so as there were at the Baillie Islands four ships which might have plentiful supplies, and in this event I was to receive two years' provisions from them. After leaving Herschel Island, we steamed north-east, and passed over a ridge or bank which extends from the north-east of the Island several miles in that direction. Opposite King Point we then struck the coast which is immediately east of Kay Point Bay. From King Point to Sabine Point—a distance of 7 miles—the

coast is about 100 feet high, with a steep bank and a narrow shingle beach. The latter becomes flat and wide between Sabine Point and Shingle Point. the background to the south is the Richardson Range of mountains. The four rivers emptying into the ocean from these mountains—i.e., between Demarcation Point and the delta of the Mackenzie -are the Firth and Herschel Island Rivers), the Kay Point River, and a stream which enters the sea near Shingle Point. After loading up with wood, we left King Point and steamed along the coast to Shingle Point—a distance of 10 miles; then skirting the islands that are formed by the Mackenzie delta, and keeping in $3\frac{1}{2}$ fathoms of water, with a very regular and sandy bottom beneath us, we passed Tent Island, 9 miles to the west of it, and also Garry Island, to which we steamed quite close. Pelly Island was the next to come in sight. Here we were stopped by the ice, which was older, and therefore more massive, and to which we had to tie up for two days, as there was no chance of getting through such a formidable barrier. Captain Tilton came alongside of the Jeannette in a whale-boat, and asked me whether I would like to land on Pelly Island—a proposal to which, of course, I very gladly acceded; so we took some nets and rifles and went ashore, thinking we might find fish and deer. The weather was very foggy, so that I could not get any observations. The north-west coast of Pelly Island is extremely shallow, and, leaving our whale-boat, we had to walk ashore for a quarter of a mile over a very flat beach before we reached dry land. This Island is about 7 miles north and south, and about 400 feet high.

Seen from the west, it would appear to be two distinct islands; but the seemingly separate parts are joined by a strip of low-lying land in the centre. There were great quantities of driftwood on the shore, and I picked up several pieces of coal, which, on my return to the ship, I tested in the furnace, and found not to burn very well, since they left a hard clinker when burnt. How much coal there is here, or to what value, I cannot say. I did not dig down to any depth, but what I found was taken from the surface. I walked for three miles over the Island, and found it to be much the same as Herschel Island both in vegetation and in the character of the ground. We saw several geese, and we likewise saw two swans with their cygnets, but were not fortunate enough to get near them. Our fishing was more successful. We secured half a boatload of fish, and, after cooking several of them on the shore, we returned to the ship. That night (July 12) we saw the midnight sun, and the observed meridian altitude was 1° 48'. The night itself and the day which followed it were unpleasant in the extreme. We were continually being buffeted by the old ice, which was drifting westward. Large fields of it were for ever bearing down upon us, and, had we suffered them to strike us amidships, we should have been shattered utterly, since they crunched the vessel sorely when they did but graze against her sides. Nor did we escape constant anxiety by keeping our bow to them. The ice, being too massive for the iron-shod bow to split, would often lift the vessel partly out of the water, and drive it stern foremost with resistless force against the not less unyielding

masses behind, thereby endangering propeller and rudder. Apart from our actual risks, however, the situation was sufficiently unenviable, owing to the crashing tumult without; for the ice-monsters, as if their lust of conflict had remained unglutted after assailing so puny an opponent as a whaling-ship, would often turn their unspent forces upon their own kind, and would bring up against each other with so violent an onset that one or other of them would literally ofttimes go under, being boarded, as it were, and sometimes even submerged. The warfare of these Titanic forces thrilled through the ice-pack with such distressing vibrations that, notwithstanding our remoteness from the actual encounter, the ship yet seemed to throb with the shock of it; and the mutual clash of the vast ice-fields was still more deafening than the horrid din of their ponderous fragments that grated against the sides of the vessel.

Being thus thickly beset on all sides, we had to take up our anchor. This is the safest thing to do in such cases, since otherwise the ice-fields, carrying everything before them, drive the ship away from the moorings, snapping the anchor-chain. It was by neglecting this precaution that Captain Tilton, who was moored alongside of us, lost one of his anchors, and drifted away to the west with the ice-pack; nor did we see him again for two days. We, for our part, only held our ground by setting our helm to the floe, and keeping up full steam. In this way we forced a passage through the pack on the third day to Hooper Island. Here there is a sand-spit piled up with driftwood, and stretching from the northeast corner of the island for the space, as I should



A WHALE SHIP IN THE FLOE ICE



judge, of 5 miles in a north-easterly direction. I did not land, but it was reported to me that close up to the beach, which is covered with driftwood, there were 6 feet of water. After passing Hooper Island we had a hard tussle with old ice, which was packed close into the land. We went 10 miles off shore to Pullen Island, which lies due north of Richard Island, and which is about 3 miles square and 600 feet high. As you come round Hooper Island from the west, you can see quite plainly the northern headland of Richard Island. Between this headland and Pullen Island I think that the main channel of the Mackenzie River empties into the ocean. This is only a conjecture; yet, when we passed this outlet, our soundings were 64 fathoms, whereas hitherto they had not exceeded 5 fathoms, and the bottom had been very regular all along the west side of this alluvial archipelago. Then, again, I understand from the Eskimo that there is deep water extending immediately off the whole of the west shore of Richard Island—as you follow, that is to say, the main channel of the Mackenzie. To trace and to take soundings of this channel from the south end of Halkett's Island, and to survey the route, would furnish two years' hard work to any enthusiast. Nothing would please me more than to complete the task I have already begun in these parts; nor should it take me long to do so, for I know exactly where to go and how the undertaking can most effectively be carried out.

At Point Separation (67° 36′ North Latitude) the delta of the Mackenzie begins to widen; and from this point, for 150 miles north and south, it is a maze

of islands and of sand-bars down to the most northerly (Pullen) island. Where the east and west branches diverge in their respective directions, the delta is 45 miles wide, and the alluvial archipelago north of 68° 59' stretches at least 100 miles east and westviz., from Shingle Point to Kittigaruit. The timber extends nearly to Richard Island on the east branch, and further north on the middle branch. From the first week in June to the end of July these islands are the breeding-ground of numerous wild-fowl—so numerous that the Eskimo have no difficulty in obtaining many thousands of ducks' eggs-as also, indeed, of the eggs both of geese and of swansduring this period. Most of the islands and sandbars are covered with willows, and have been built up of mud and of driftwood; the latter, when submerged, arresting the deposits of the river. With this driftwood all the islands are thickly strewn, and the channels among them teem with fish. Here the Kogmolik Eskimo hunt the white whale, and often kill large quantities of them during every year. Richard Island is far larger than any of the others. I cannot gauge its dimensions with exactness, but should judge them to be about 30 miles east and west, and 50 miles north and south. There is no map of any of these islands, as far as I know. sea is receding all along this coast, and the influence of the Mackenzie River may be said to exist from Toker Point to Herschel Island; but the soundings, channels, and submerged banks between these points are little known.

We were steaming for two days north of this archipelago, and were hemmed in by ice on all sides.

Through this obstruction we slowly toiled, until by 12 p.m. on the second day we got into $2\frac{1}{2}$ fathoms of water. Here we lowered our whale-boats to get soundings ahead while we lay at anchor. This is an unpleasant task for the men. In a fog the boats sometimes lose the ship, and it has happened before now that they themselves have never been seen again. These fogs come on very quickly, and when all the boats are down an anxious time follows; for there is nothing to guide them but the steam whistle, and this, frequently enough, the crews are too far away to hear, or the loud shocks of the ice will in all likelihood prevent their hearing it. Fortune favoured us in the present instance, for the fog lifted soon after we had dropped our anchor. We could now see the hills near Tuktuïaktok on the mainland; so we soon picked up our boats again, and steamed for Toker Point. There was no ice near the land. We kept, therefore, 5 miles off shore, and steamed to Cape Brown. Passing quite close to Cape Dalhousie, we then entered Liverpool Bay, where we saw very little ice until we got to the Baillie Islands—a distance of 40 miles from that cape—which we reached on July 19 at 4 a.m. It had taken us just nine days to do what we should have done in less than a quarter of the time if there had been no ice about. From year to year and from day to day the conditions of ice-navigation during open water are for ever varying. They change, indeed, as quickly as the wind which governs them. At one time we would often be steaming along at 5 knots an hour, when suddenly a fog would enshroud us, and in a very few minutes we would find ourselves surrounded by

ice, and capable only of drifting in whatever direction it would like to take us. The whale-fisher's chief guide is his lead; the soundings tell him how near to land he is. A further difficulty is the seeming absence of any regular current—all the currents are governed by the wind and ice. No one seems to understand the nature of these waters farther than 72° North Latitude. So far as this degree, they have a very accurate notion both of the depth and character of the bottom, having often been out at this distance from shore when chasing whales; but whenever they get far from land, they invariably meet some fields of very old ice. By this they have a great dread of being cut off, and they generally give it a wide berth, since many a boat has been locked and lost in its fatal grip.

On our arrival at the Baillie Islands we met five ships—four of these had wintered here, and one had joined them after wintering at Toker Point. The crews that had spent the winter here had suffered from scurvy, which they attributed to the scarcity of fresh meat, since there were very few deer killed around Liverpool Bay this year; nevertheless, these men had not lacked for provisions nor been reduced to half-rations, like the crews at Herschel Island. At the present moment, however, there were altogether ten ships here, and most of them were very short of coal; but those who had provisions came to the aid of those who had not. I saw no prospect of obtaining two years' supplies from them before the tender came in; but as it had never yet failed, I had every hope that ultimately these supplies would be forthcoming. The report we got from

these ships was that there was nothing but ice to the east of Cape Bathurst, and that there would be no chance of going forward for some days to come. These delays would be less vexatious if you could but form some idea of their probable duration. I had a great deal of work which I wanted to do here, and which would have filled up the time; but, as it was, I remained a perfect prisoner, for each day the ship might get clear, so that I could not risk going any distance away from her. I was anxious to go to the south end of Liverpool Bay and to Nicholson Island, but dared not be absent for more than twelve hours at a stretch; so I had to content myself with making a map of the islands, and this occupied all my spare time. Fifteen days were we detained here, but there was hardly a day on which we did not try to break through the ice-barrier, by which we were as often baffled and driven back to anchor under the Baillie Islands. After a week of this captivity, we could see open water some miles to the north; so eight of the ships sallied out and tried to force a passage in that direction. We steamed all day through heavy old ice. Sometimes we were in a lane between two floes; at other times we were charging the obstacle full steam ahead. In this manner we made headway 10 miles to the north, but only to find ourselves held prisoners in the icefields, and there we were, in 14 fathoms of water, drifting back to the west, and, for aught we knew, back to Herschel Island. Luckily, however, the ice opened out, enabling us to steam south to Cape Dalhousie, and thence, again, across Liverpool Bay to the Baillie Islands. One of the ships lost her propeller, and had to be towed back under great difficulties. Nothing but massive old ice was to be seen to the north of the Baillie Islands, so we anchored for another week. Here, again, had I only been able to gauge the length of our delay, I could have got many soundings, and could have mapped the whole of Liverpool Bay. As it was, it would have been madness to leave the ship and risk getting left behind. I spent my time making a map of these islands and of the harbour; I likewise made several excursions out on to the ice. This was closely packed as far to the north-east as you could see, until August 4, when we again attempted—this time successfully—to break through it. The Baillie Islands were surrounded by massive old ice which had come down from the north. Much of it was aground, and we had to plough our way through it for a whole day before emerging into open water. Henceforth, however, our passage was not again obstructed by the ice. After we had been steaming for half a day in the open water, I was surprised to see a large ice-field following in our wake, whereupon Captain Newth reminded me that this was the only difficulty which kept the whale-ships from going very far north. They often find themselves cut off by large ice-fields, which seem to come from every quarter except that from which you would expect them; and if the unlucky adventurers do get intercepted by the pack, they have to winter there, and to run a great risk of losing their ships.

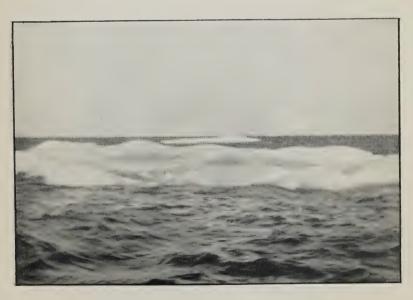
We steamed straight to Nelson's Head, Baring Land, and on our way we passed Smoky Mountain (which lies about 15 miles east of Cape Bathurst) and also the Horton River (about 40 miles east of the same cape). As we crossed over to Nelson's Head we could see Cape Parry, and Franklin Bay was full of ice. The coastline between Cape Bathurst and the Horton River is quite precipitous, with a bank of mud about 50 feet high. The Horton River is the last big stream going east upon which wood is found, and there is a trading-post at the mouth of it. Nelson's Head is a rocky headland that rises to a height of 800 feet, and the west coastline for 10 miles is quite precipitous. It then gradually slopes down to Cape Kellett, terminating in a low sandy beach. We passed along quite close to the shore, and I could see no signs of driftwood upon it—not even though I gazed through a telescope from the crow's-nest, whence I could plainly make out the pebbles and stones on the shore. We went up to Cape Kellett, and saw all round this sand-spit a quantity of old ice lying aground—a quantity not less than we had passed at the Baillie Islands. I have thus mentioned two of the three points round which large accumulations of ice are at all seasons of the year to be found lying aground. The third of these is Point Barrow. These three capes, therefore, are always difficult to double, and before the first week in August it is rarely possible for ships to pass any of them. On the other hand, there is probably no record of any year in which, after the date just specified, navigation has continued to be impracticable, though, indeed, it was reported to me that throughout one year there was no period during which the whalers were able to get to Bank's Land. The ice that I saw drifting in August was not formed by ice-pres-

sure, but seemed to be very like the floe-bergs of which Commander Peary speaks. If it is of this formation, it is not formed, at any rate, on the islands of the Parry archipelago; for there is neither snow nor glacier upon these islands during the summer months. When I saw Banks Land there was no vestige upon it of either, but the whole island was a mass of verdure; and it was scored with several beautiful valleys, which were full of vegetation, and which extended down to the sea-beach. It seems probable that there is to the north a land where these floe-bergs are formed, and, should such a land be discovered, much driftwood will be found upon its shores; for I saw large quantities of timber floating in the ocean north of the American continent.

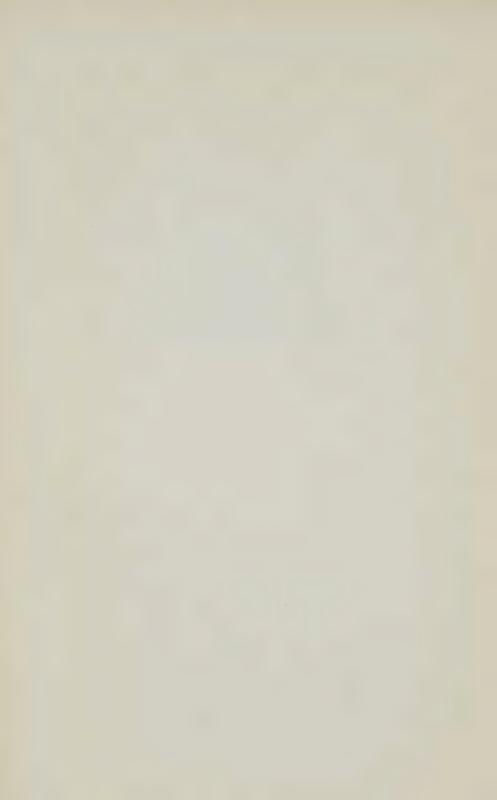
From Cape Kellett we sailed off in a northwesterly direction without seeing any large icefields, and when we turned south nothing but open water again met the view. To the north, as far as the eye could pierce from the crow's-nest, there were a number of floe-bergs in sight, and I took several photographs of them. This year seems to have been very exceptional, since everyone told me he had never seen so little ice before—a fact ascribed to the continual north-easterly winds, which had driven the ice to the west. It was quite true, indeed, that we had encountered nothing but north-easterly winds since leaving Pullen Island; yet, on our return to Herschel Island, we found that there apparently they had been having nothing but north-westerly winds. For a couple of days we looked around for whales, but not seeing any, we returned to the Baillie Islands in a gale of wind. Fortune thus put



ICE OFF CAPE BATHURST, END OF JULY.



DRIFTING ICE IN THE ARCTIC OCEAN.



it out of my power to describe any whale-hunt as an eyewitness—this, too, though Captain Newth, who had me aboard his vessel, was reputed one of the most successful whale-fishers that came to these waters. It is true we had not gone out expressly and primarily in quest of whales; nevertheless, to return empty-handed seemed somehow a pitiful dénouement, and I could have asked reproachfully, with Miss Fanny Squeers: "Is this the hend?"

"Hi nostri reditus, expectatique triumphi?"

By way, perhaps, of doing their best to appease my disappointment, the whale-fishers poured into my receptive ears a graphic description of the sort of thing I had missed seeing; and if I, in turn, have raised false hopes in the reader, and caused him to keep a sharp look-out in this chapter for gigantic seamammals, I will make him the only amends in my power by transcribing as accurately as memory will allow what I heard from the lips of weather-beaten experts aboard the *Jeannette*.

Let us suppose, then, that a whale has been sighted. The man who first sees it at once proclaims the fact, thereby establishing his claim to an extra share of the spoil. Straightway the half-dozen of boats are lowered from the davits, and each of them is manned by a steersman (whose task is, perhaps, the most important and delicate), a harpooner, and four oarsmen. Every boat, moreover, has its distinctive colours. These are displayed on a flag, and are likewise painted on the oars and paddles, the oars being carried to beat a speedy retreat from the infuriated animal when it shall have been struck, the

paddles to approach it as noiselessly as possible, since the whale's sense of hearing is said to be exquisitely acute. Instead of the paddles, however, a sail is used when there is wind enough. The word of command is now given, and the men ply their paddles, not without lively misgivings; for they are not unlikely to find themselves shot sprawling on to the creature's back, or spluttering out most unwelcome mouthfuls of brine, like the unfortunate steersman whom Gyas doused:

"Salsos revomens e pectore fluctus."

Nevertheless, it is the part of a good oarsman here, as on the Isis, to keep his "eyes in the boat," and not to anticipate evils before they come by turning round to look. The steersman, on the other hand, has to use his eyes to some purpose in directing the boat's course at right angles to the whale, over the neck of which he tries to pass, this being the part which is raised least high out of the water. Now comes the harpooner's turn. No sooner does the bow of the boat reach the animal than he discharges from a shoulder-gun a bomb into the whale's head, and if the boat passes over the neck he plants two harpoons therein as dexterously as a bull-fighter would plant a couple of banderillos. To each harpoon is attached a stout cord, coiled in a barrel, and after these weapons have been imbedded in the massy victim it is a matter—for captive and for captors of sauve qui peut! Should the whale not be killed outright, it will probably plunge down into the depths with lightning-like rapidity, there to remain sulking like a salmon for the space, maybe, of fifteen or twenty minutes. Longer it cannot stay under water, but must come to the top again to blow. hunters, likewise, must now look to their safety. the whale drags the boat through the water at headlong speed, they stand no slight chance of getting swamped; whilst, in any case, the death-throes are more befittingly to be witnessed from that distance which is called respectful. The vanquished monster has next to be taken in tow. Signals are made to the ship by means of the flag, and when she arrives upon the scene the dead whale is hauled up along-Then begins the more unsavoury part side of her. of the proceeding, and the sea is turned for the nonce into a reeking shambles. The bone is extracted, the black skin cut into strips, and as much of the blubber taken as can be carried. I remember my informants telling me how they once captured a whale which "shammed dead" with them. After a desperate struggle, they had towed it in for a long distance, and, misled by its seeming inertness, they had passed a long chain around its flukes.* They had then gone below to renew their spent forces, and to celebrate their achievement by what doubtless corresponds to what one hears of "bump-suppers." When the mirth was at its height, a dismal racket as of chain running out broke in of a sudden upon their The whale was bestirring itself, and dragging the ship after it; and the scared crew tumbled on to the deck only just in time to see a swirling mass of foaming water, beneath which their

^{*} The "flukes" of a whale are the two halves of his tail—so named on account of their resemblance to the flukes of an anchor.

prey disappeared, taking several fathoms of chain as a keepsake. It is a popular belief that our inland anglers, when unable to raise trout to their fly, are wont, sooner than return empty-handed, to procure some from a local fishmonger. Trout which are bought must needs be less fresh and tasty than those which are caught, but in the Arctic regions, at any rate, there are times when one would gladly pay through the nose for a few mouthfuls of fish, however far it might be from fresh; and my own experience having denied me the materials for a "fish story," I have been forced instead to bring back this yarn from aboard the whaler.

On reaching the Baillie Islands, we found Captain Levet at anchor in the Narwhale, and I went over in the dinghy to see him. He had three natives on board, who had been left at the Baillie Islands the day before by the captain of the Olga. This was a small schooner belonging to Captain McKenna, who, in the fall of 1905, had sent his first mate to look for whales. This man accordingly assumed command of the Olga, in which he went over to Victoria Land; and during the winter, which he spent in Prince Albert's Sound, he lost four white men. Two of them he sent out on the ice in search of seals, but they drifted off with the floe, and were not seen again; the third man died on board, and the fourth, who was the engineer, was shot by his commanding officer.

I saw this mate, who told me that he had found driftwood on the north shore of Prince Albert Sound, as also abundance of game. He had likewise travelled up during the winter to Minto Inlet, where

he had then met fifty Eskimo. Speaking their language fluently, he had no difficulty in making himself perfectly understood, though none of them had ever set eyes on a white man before—none, that is, saving one old woman, who told the mate she could remember the white men coming to her people's camp when she was a little girl. One of them had then given her a piece of red flannel. If this be true, there is here, perhaps, a remarkable coincidence; for she would doubtless have been the same person to whom McClure gave a piece of red flannel, and who asked him upon what animal it grew. The mate assured me that he understood every word spoken by the natives of Victoria Land, and that to them, in turn, everything which he said was thoroughly intelligible; and during his winter sojourn amongst these folk he had made a very fine collection of Eskimo clothes and implements.

After staying for one night at the Baillie Islands, we resumed our journey to Herschel Island, passing very little ice on our way. Our spirits were buoyant in the expectation of at last entering upon a joyous time of plenty, when the tender should arrive from San Francisco, bringing coal and supplies to the ships, which had spent three long and starving winters in the Arctic waters. Resolutely as a man may endeavour to draw his thoughts away from himself by hard work, the stomach will yet remain present in consciousness; the "still small voice" of plaintive hunger cannot be quelled. In times of great hardship and scarcity he may grimly set his teeth (having no more profitable employment for

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them) to prevent moan or murmur from escaping through them; but when a prospect of plenty is opened up, the alacrity with which he embraces it shows pretty clearly how deeply his thoughts have all along been plunged in the dismal hollows of his empty inside. Therefore, by such a prospect were we now buoyed up as we steamed straight to Herschel Island, whither we arrived on August 14.

CHAPTER VIII

WITH THE WHALERS

August 14 to August 29, 1906

Effects of San Francisco disaster—Dismal tidings—Uneasiness amongst the whalers—The belated tender—Meeting with an ethnologist—An expectant throng—Hard times—A gallant police-sergeant — Some anecdotes — Shattered hopes — A tempting offer—Obtaining some supplies—The wreck of the Alexander—A heroic effort—The last of the whalers.

On reaching Herschel Island, we saw in Pauline Cove five ships which, like our own, had just come in from the whaling-ground. No tender, however, had as yet arrived from San Francisco, and no sooner had we dropped anchor than we were boarded by three of the whaling-captains, who brought us tidings of the disaster which had just befallen that ill-fated city. This was a terrible blow to the whale-fishers, many a man of whom had his home and all his possessions in San Francisco. Viewed in themselves, and in their consequences to the mass of the townspeople, the scenes which followed upon that fire and earthquake were such that the wildest imagination could scarcely have outstripped their actual horror. Of the fate, however, which had overtaken particular individuals nothing was yet known with certainty, and in the absence amongst the whale-fishers of this definite information, the tortured fancy of these poor fellows painted in the most frightful colours what as yet was matter of remote conjecture. Had the worst but been known, these men would probably have been numbed and stupefied by the shock; as it was, the dreadful suspense goaded them into a state of feverish unrest. None of them could talk about anything else, until at last they were all worked up into a state of downright frenzy.

A less unselfish cause of their distress was one which spread dismay amidst the rest likewise of our little community at Herschel Island: should the arrival of the tender be much longer delayed, the outlook would be a black one for the Eskimo as well as for the whale-fishers. These natives had looked forward to the incoming of supplies from San Francisco; for only then could they receive full payment in kind for the fish and deer-meat in which, with ceaseless toil, they had kept the crews during the past winter and spring. On board the whalers themselves conditions were little more enviable; the men were still on half-rations, and if they did not, before reaching Point Barrow, meet the belated tender, the half-rations would be cut down to a still more beggarly allowance. As to any further supplies of meat or fish from the Eskimo, these were out of the question; the latter would have their work shaped out to keep themselves. Lastly, my own plans, which I had built up on the assurance of being able to buy two years' provisions when the supplyship came in, seemed likely to be utterly overthrown; thus strangely had the threads of our respective destinies—my own hopes and those of the Eskimo

—become interwoven with those of the whale-fishers. Another year of starvation pittance stared me in the face. The Eskimo, to be sure, would somehow get a living, and I could throw in my lot with them, as before; still, turn the situation over as I might, it could not but arouse in me the gravest apprehensions.

News of the disaster had, together with several papers containing pictures of the wrecked city, been brought from Athabasca Landing down the Mackenzie by the Royal North-West Mounted Police, who have a station at Herschel Island, and who had arrived during the last week in July; but the information thus available was necessarily of an incomplete and general kind, and could throw no light on the fate of individuals. Imagination ran riot, but anxiety was not allayed, when the whale-fishers seized the illustrated journals. In the case of the captains, this anxiety was intensified by the absence of any communications from the owners of the whalers at San Francisco. There was nothing to dispel the doubt as to whether or no the tender was coming, and any activity which the grave emergency might otherwise have prompted was accordingly paralyzed.

With the police had come Mr. Stefansson, the ethnologist of the Mickklesen Expedition, who had expected to find the ship in which this expedition was undertaken—the *Duchess of Bedford*—at Herschel Island. I was pleased to meet him, and after we had discussed the situation, I assured him that in such an open season—for in our voyage from Banks Land we had seen no ice that could stop a

ship—his vessel would safely arrive. In the event, however, of its failing to do so, I promised him a welcome should he come to my camp for the winter. He was staying at the time with the police. If only they could keep him till the winter set in, it would be possible for him to remain on at Herschel Island.

Upon hearing that there were no signs of the tender, I had left the *Jeannette*, and had put up my tent amongst those of the Eskimo families who, to the number of about thirty, were now encamped upon the beach.

With straining eyes and wistful faces these unhappy natives were watching eagerly for the tender to arrive. If starvation was awaiting the whalefishers, it had already seized upon those they had unwittingly duped—upon all those who thronged this shore, except the Mounted Police. At no time of year are fish plentiful around Herschel Island and the weather was now so bad as to make it impossible to keep a net spread in the ocean. Seals, moreover, were scarce. Sometimes I got half a small fish during the day, and sometimes nothing at all; in fact, the two weeks which I spent here at this time were amongst the hardest I have ever gone through. There were at least 100 Eskimo and about as many dogs. All these had to get their miserable daily snack out of the ocean. Sergeant Fitzgerald came to me on two occasions, and offered me some rice and oatmeal; but I did not feel justified in accepting this kind offer, for he and his comrades had also bad times ahead of them unless the tender were to come in. Whilst refusing, therefore, to take

anything from them, I nevertheless felt very much indebted to the sergeant for his kindness; nor can I speak too highly of the work which this gentleman accomplished when he was at Herschel Island. had a most masterful way of managing both the natives and the whale-fishers, which is attested by two stories that were told me during my sojourn on this coast; and I am fully convinced that these stories are true throughout. The first year that the police had a station at Herschel Island, Sergeant Fitzgerald was in charge of it; and once, when the Eskimo had obtained some whisky, it got to the sergeant's ears that some half-dozen of them were drunk in one of the Eskimo houses. It was well on into the night when the news came to him, but he at once got up and went to this house. The door was fastened, and so soon as ever he attempted to enter, the lights inside were put out of a sudden, and every effort was made by the inmates to resist his entry. Strong man that he is, the sergeant resolutely forced his way in by breaking the door, and immediately he was borne to the ground, locked in close grapple with one of the most powerful men amongst the Eskimo. Blows and kicks were rained upon the brave officer, but after a desperate struggle he succeeded in handcuffing his assailant and carrying him off for two weeks' detention.

The second story bears, if possible, still more striking testimony to the sergeant's grit. An Eskimo to whom he had given a timely warning declared his intention of shooting the sergeant, and, suiting the action to the word, the fellow went up to the barracks

with a loaded rifle, which he levelled at the sergeant's head. Apparently quite unconcerned, Fitzgerald walked up to the Eskimo, took the rifle from him, and, seizing him by the scruff of the neck, placed him for two weeks in confinement. During my stay with the Eskimo, I gathered from them that they had the greatest respect for this gallant gentleman, as well they might. If he is masterful, it is not from any mere insensibility to danger, and he is not less tactful than courageous. Many tales are current of how he has dealt with the whale-fishers, and I have never heard anything spoken of him but praise.

During these memorable two weeks we had a succession of strong winds, varied by drifting mists, from the north-east. Many of the starving natives lost their nets, and often nearly their lives. When the mists prevailed, they were too dense for it to be possible to go out any distance from the shore, and at length one day, when the mist thus heavily brooded over the ocean, we heard the shrill whistle of a steamer. Straightway everyone seized his rifle and fired shot after shot; every boat in the harbour joyfully answered the signal, and the drooping expectations of each man were aroused to such a pitch as they had never yet attained. All pressed forward, craning their necks, and staring into the thick woolly mist, till the eyes nearly started out of their heads, to catch first sight of the long-awaited tender. last the black form loomed indistinctly through the fog, and in a short time the whaler-it was not, alas! the tender—hove alongside, to the great disappointment of all. Birds of a feather flock together,



THE "MIDNIGHT SUN" ON THE ATHABASCA RIVER.



and it seemed as though the universal famine of the place had drawn hither yet other wretches to sicken and starve. The new-comers had arrived straight

from the whaling-ground.

The overwrought anxiety and restlessness of the crews now became unbearable to them, and on the next day all the ships except the Narwhale left Herschel Island and went west, in hopes of meeting the tender. I was sorry to see the last of those friendly faces, the more so as the captains had offered to take me to San Francisco. There were still two vessels, however, which were whaling out away to the east. These were the Charles Hansen, Captain McKenna's ship, and Captain Tilton's Alexander. The Charles Hansen and Captain Levet's Narwhale were both well stored with supplies, but they were the only ships that had anything. Captain Levet sold me fifty-two dollars' worth of supplies, which consisted of ten sacks of flour (each sack holding 50 pounds), 100 pounds of sugar, and 25 pounds of coffee, as also 1,500 cartridges. Shortly afterwards, on August 21, he left Herschel Island. Two days later McKenna came in from the east, and from him I bought fifty dollars' worth of supplies—to wit, five sacks of flour (each holding 50 pounds), 25 pounds of vegetables, 25 pounds of rice, 25 pounds of sugar, 3 pounds of baking-powder, and 30 pounds of bacon, as well as 10 gallons of coal-oil. He intended to depart on the next day and to go west after the other ships, but a strong gale arose and detained him until August 27 -most fortunately, as it turned out in the sequel; for on the previous evening, as I lay asleep in my tent, an Eskimo rushed in about 1 a.m. and panted out excitedly that Captain Tilton and his crew had been shipwrecked, and that they were arriving in whale-boats. I got up at once, and was just in time to see the captain himself come round the sand-spit in a gale of wind. They had been wrecked on Cape Parry in a drifting fog, with a strong wind blowing and the sea running high. The Alexander at the time was steaming at full speed, and when first she struck, the crew, not seeing anything in front of them. thought they had collided with a piece of drifting ice; but, on striking again, the vessel immediately filled with water, so that they hardly had time to rush to the boats. These are always kept in readiness on a whaler, but in such a sea the men had great difficulty in lowering them on the weather side. It was then that Captain Tilton nearly lost his life. He was the last man to leave the ship, and just as the boats were being pushed off he jumped from the vessel, but missed the stern of the boat, and fell into the sea. Luckily, however, he managed to catch a rope that was thrown to him, but it was not without difficulty that he was pulled into the boat when he had been dragged alongside. The mist was so dense that they had no idea of their locality, but on reaching the shore they saw the rocky headland of Cape Parry looming over them, and then they knew that they had at least 400 miles to travel before regaining Herschel Island-this, too, along a barren and deserted coastline in open boats, and probably in a raging sea. This wreck occurred on August 16, yet on August 26 they arrived at Herschel Island, every one of them strong and well, and no whit the worse for his adventure. Between the time of the wreck,

however, and that of their arrival back at the island they had suffered a continual strain of anxiety and of hardship. It is not easy, indeed, for us who crouch over our cheery fire to enter into the difficulties and dangers which these men encountered during those ten days. They made the whole journey through rough seas and through gales of wind. Every stitch on their backs was thoroughly drenched, and they had no clothing to replace it. Of supplies, they carried only that scanty portion which a whale-boat always has on board for an emergency; nor are the emergencies contemplated of such duration. Every now and then these forlorn wretches had to put ashore to find fresh water and to snatch a few winks of sleep, and I can answer for it that putting ashore here is no easy matter, for there are many miles of coastline along which it is almost impossible to find a place for landing in a strong wind. Nevertheless, these men doggedly held on their course, crossing two large bays-Franklin Bay and Liverpool Bay—until at last they reached the Mackenzie delta, and keeping well to seaward of this, they arrived at Herschel Island in a storm which prevented a vessel like the Charles Hansen (which had been built for this voyage) from putting to sea. They certainly looked miserable objects when they arrived, jaded and woebegone; but they had made a fine, heroic effort. It had been a case of do or die with every one of them, and they had carried on a desperate and unceasing struggle, accomplishing an average daily journey of 40 miles in an open boat. Time had been all-important to them. As it was, all the ships had sailed except the

Charles Hansen, which had only been delayed in consequence of the gale that they themselves had weathered. If they had not been fortunate enough to find this sole-remaining vessel delayed there, they would have had to go on to Point Barrow, and would probably have had to face a fourth winter in the Arctic Ocean. Amongst them was that sturdy veteran Captain Murray. He brought in one boat with ten men, and this was about the tenth shipwreck that he had experienced on this coast in his fifty years' whaling career. Of Captain Tilton I can only say that he impressed me as being utterly fearless, and to have brought in fifty men from so perilous a voyage speaks for itself as to his seamanship and judgment.

The Charles Hansen took them all on board, and steamed out of Pauline Cove on August 27. This was the very last that I was destined to see of the whale-fishers. I had bought from Captain Tilton the whale-boat in which he had just journeyed from Cape Parry. It was in excellent condition, save only for the centre-board, which had been broken by running aground. I likewise gave him many letters to dispatch for me, as also instructions to bring me in the following year supplies enough for two years; for I intended to abide for that period in the Arctic if I failed to accomplish during this present year the undertakings on which I had set my mind, and for which I had undertaken the whole of this journey. Let me again remind my readers that the object of my expedition was frustrated for want of supplies. With my scanty stock of provisions I could not make a journey on the ice. Winter was fast approaching,

and the only thing for us to do was to find, if possible, a place where we could get food to keep us alive till the following summer. After the ships had gone it would have been madness to remain at Herschel Island, for we were all starving. The only thing before me was to fly at once to some less-frequented place with the Eskimo whom I had engaged.

CHAPTER IX

FAREWELL TO HERSCHEL ISLAND

August 29 to September 29, 1906

Departure for Fort McPherson—Illusion of the ice-blink—A long day—Shingle Point—Black bear and caribou—Sprightly crones—Entering the river—Fish and wild-fowl—Lotuseaters—A rabbit-hunt—The west branch of the Mackenzie—Leaving a cache—Costly supplies—Perplexity—To Point Separation—Down stream—Bad travelling—The Lob-Sticks—The Small River—Forcing our way through ice—Winter-quarters—Beaching the boats.

"FAREWELL, then, Oxford Street, stony-hearted stepmother!" In these words the English Opium-eater apostrophized the cheerless thoroughfare which he had so often paced, a forlorn and hungry outcast. It would be hard to fling more concentrated bitterness into a leave-taking; but, if anything could enable a man to do so, it would be a sojourn at Herschel Island during two such weeks as we had just undergone there.

Niggard of safe harbourage—statio male fida carinis—even during the open-water season, that icy-hearted land had still more unmistakably throughout three successive ice-bound winters shown itself, in the phrase of a yet greater writer than De Quincey, a "stepmother to ships." The whale-fishers, who

had at last slipped their bonds, assuredly owed the place a grudge; yet the exultation with which I had steamed away on board the Jeannette to Banks Land had been strangely blended with a lurking feeling of regret. Not only had I contrived, in vulgar parlance, to save my bacon on that leanly-larded island, but, furthermore, I had found the bacon to be deliciously streaked. Hard times had been interspersed with, and had heightened the relish of, periods of whole-hearted enjoyment. These kindlier memories, however, had been ousted by the prolonged distressing nightmare of the past two weeks, and I was now unreservedly glad to see the last of

the accursed spot.

As if I could not too soon get away from it, I made my two Eskimo, Kokatū and Eiăki, begin loading up both our whale-boats at 4 a.m. on August 29. Eiăki's son-in-law and daughter had gone in advance some days before to try and procure fish or deer, and, as the police were on such short commons, Mr. Stefansson was to accompany me as far as Shingle Point, where he would await the arrival of his ship, the Duchess of Bedford. I had about 1,500 pounds of provisions aboard, together with the appurtenances -tenting, cooking utensils, and the like-of camping. This load we distributed as nearly equally as possible between the two boats. Eiăki and his $k\bar{u}ni$ (wife), with one child, embarked in the first boat with Mr. Stefansson; Kokatū and his wife, with two children, accompanied me in the other. It was a glorious day, and the wind, which had previously been blowing boisterously, had wholly died away, leaving only a heavy swell. There were a few pieces

of ice floating about, which, like lords of the ocean, moved along with stately calmness, as if conscious of their own power, some of them displaying their glittering pinnacles in towering majesty of whiteness, others rising only half that height—rising, that is to say, some ten feet-and presenting, instead of peaks or crests, a flat tableland which fell away on all sides in a sheer smooth wall, which, when seen from a distance, was so magnified as to resemble a cliff. For this illusion of the eye it is possible to account by the ice-blink—by the dazzling effect, in other words, which is produced by gazing at a large shining surface, such as a cliff or wall of ice, that beats back the radiance of the sunlight. At any rate, these floating islands, whether crested or otherwise, though they resume their natural blue when you approach them, seem from afar as hoary and as dazzling as the Dover Cliffs which you approach from Calais. The atmosphere has doubtless much to do both with the apparent whiteness of these ice masses and with the baffling effect thereof upon one's vision.

The provisions with which we left Herschel Island would ill suffice to keep fourteen people for a year, however carefully they should be husbanded. I was unwilling, therefore, to make any inroad upon these provisions. I felt, nevertheless, comparatively well off in the matter of food when I looked back at the privations I had undergone at Herschel Island.

Our first day was a long one. Loading up had taken us nearly five hours, and though we set off at 9 a.m., and had only fifteen miles to make across the bay to the Kay Point River, we did not get there till 2.30 on the following morning, since we had no

wind behind us. On arriving, moreover, we were unable to land by reason of the heavy surf, and had to go up to the mouth of the Kay Point River, which is at the end of this inlet, about 5 miles inland from Kay Point itself. After leaving Herschel Island for the Mackenzie River, a whale-boat can take shelter here, and also at Shingle Point. On reaching this inlet we set a net, and got a few fish. We then continued our journey, after a few hours' rest, to King Point, where Kokatū's brother, Kūnuk, was encamped, and the latter gave us some deer and some fish. It was now blowing hard, and Kokatū wanted to wait for the next day; but, as the season of open water was drawing to a close, I thought it best to go on, and with a fair wind we got to Shingle Point late that night. Here I remained for a day or two, while the men killed some deer and caught some fish. Here, too, I had a centre-board made, which we fitted into my whale-boat with great success. Eiăki's son-in-law, a young Eskimo, had killed a black bear and three deer, so we had plenty to eat. The deerskins at this time of year are in prime condition for making clothes. The summer coats of these animals are so much lighter and better for winter clothing that the natives make every effort to obtain them at the end of August for this purpose. During our short stay here we got five deer; also a large quantity of berries, which were very good. The natives wanted me to give them some sugar to eat with their berries, but I would not break into the 100-pound sack of sugar which I had brought, for I foresaw hard times ahead of us, and sugar is a very nourishing and warming food; so I told them they could not have any. The independence of these people is amazing. Later on in the winter, when I did open the bag, they would not eat the sugar, because I had refused to let them have it in the first instance.

As I particularly wanted to get to Fort McPherson before going into winter-quarters, I did not tarry longer at Shingle Point. There was a Kogmolik Eskimo encamped here, who agreed to keep Mr. Stefansson until after the freeze-up, and then to bring him on to my camp if the Duchess of Bedford did not come in from the west. I thought this was the best arrangement Mr. Stefansson could make, as there were plenty of fish here; so I lent him a blanket and a sack of flour and departed for the west branch of the Mackenzie. With me were Eiaki, his wife, and their mothers—two very infirm old women—his child—about nine years of age—and his son-in-law and daughter; and Kokatū, who likewise had his wife, his two children, and his mother—another decrepit old lady-together with another Eskimo. Our party therefore numbered fourteen (not to speak, as Mr. Jerome would say, of eighteen dogs) in three whale-boats, three of this little band being tottering old crones whom I was most reluctant to take with me; but there was no choice, for these people will not leave their old fathers and mothers behind, and so, if I had not agreed, I should have been forced to go by myself. I looked upon these old folk as the greatest encumbrance, and as very expensive to feed—an opinion which turned out to be quite wrong; for when I got into winter-quarters they procured much more food by fishing than did anyone else in camp. They went out in all weathers, and sat fishing over a hole in the ice. They had



ICE DRIFTING IN THE ARCTIC OCEAN.





much more patience than the men, and invariably brought in fifteen or twenty fish.

From Shingle Point the channel into the west branch is extremely narrow, and, owing to the very shallow water, and to the mud-banks, it is rather difficult to enter even with a whale-boat, which only draws 2 feet of water when the centre-board is up; but, once you get into this narrow channel, there is no trouble in towing-or, if you have wind, in sailing —the boat upstream. On the west bank of this watercourse, at the point where the latter enters the ocean, there is a fish-staging, which is about 5 miles east of Shingle Point. You have to keep well out to sea, for the coast is very shallow. At this time of year, indeed, it is nothing but a mud-bank with a foot of water on top. This mud is particularly soft and sticky, and if you jump out of the boat to push it off, you at once sink deep into the mud. It is best to keep about 2 miles off shore, lowering your sail when you get in sight of the fish-staging, and paddling your boat into the river. Across the delta of the Mackenzie there is a channel which all the Eskimo know well. It passes to the north of Tent Island, and then through a maze of islands to the south-west corner of Richard Island. I wanted to explore this channel, but never had a chance of doing so. Mr. Stefansson, however, twice crossed the delta of the Mackenzie during the winter, and his knowledge of this channel would be trustworthy.

No sooner had we entered the west branch than we beheld, to our great joy, immense numbers of geese and of duck upon the flat, boggy ground which stretches away from the foot of the mountains for two miles, this being its width north and south, whilst

its length east and west is five times that distance. The watercourse that we had now entered winds through this swampy flat, which is intersected, moreover, by many other streams and lakes. We had not gone far before we saw thousands of white-fish feeding close to the surface of the water at the point where a little mountain brook came into the channel. The harsh clamour of the disturbed water-fowl and the splashing panic of the fish, which dived off in all directions, scared by our approach, was sweet and sonorous to my ears as ever was the deeper-toned solemnity of ancestral dinner-gong; and with more reason than Mr. Squeers, who smacked his lips in simulated raptures over the diluted rinsings of milk he treated his pupils to at the Saracen's Head, I was ready to exclaim: "Here is fatness." Here, in a word, we resigned ourselves to the situation for two days; and the dogs likewise had their fill of prog and peacefulness. The weather, unfortunately, was wet and misty, so that, much as I wanted to, I could not get an observation. I spent the time, therefore, in surveying.

Having loaded up our boats with fish and with wild-fowl, we waited only for a fair wind, and then ran up the channel into the main west branch of the Mackenzie. We struck timber before camping again, and the spot wherein we then pitched our camp was an island just near the northern limit of the trees, which was overgrown with willows, and which teemed, furthermore, with rabbits. Accordingly, I organized a rabbit-hunt. Parallel to the river, and at 100 yards' distance from it, we chose out a line of these willows, to each of which, at about a foot from the ground, we tied a handkerchief or an

old strip of ragged clothing. Where this line of bunting came to an end we spanned the 100 yards which lay between it and the river by means of two fishing-nets, or, rather, we spanned 60 yards of it, for between the nets, which were each 30 yards long, the interval of 40 yards left the only place through which the rabbits, scared by the bunting and hemmed in on the other side by the river, would seek to escape. This interval I could command with a gun, so I stationed myself in readiness beyond the outlet; and in the meantime I sent all the men about 2 miles up the river-bank to beat the osier-bed down to where I stood, whilst a woman was placed at each net to take out the rabbits. This drive was most diverting to the natives, the more so when we gathered up eighty plump rabbits at the end of it. These Eskimo had never seen anything like it before, and it surprised them to find that a white man could teach them a trick in their own country. In this manner, fishing, and shooting whatever came in our way (one of the tastiest things, by-the-by, that you could wish to eat is toasted musk-rats, of which the natives procured an abundance), we journeyed on to Fort McPherson.

The west branch of the Mackenzie-from the point where we got into the main channel—up to the Peel River is 100 miles long and from ½ mile to 3 mile wide, and both banks are thickly wooded. This branch winds along under the Richardson range of mountains, a range of which you come in sight soon after leaving the Arctic Red River, and which is enclosed on the south by the Peel, on the east by the west branch of the Mackenzie. Both banks show a rise of 50 feet of water in the spring, when

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the ice is going out of the river; for in many cases the bark of the trees on the islands is scored by this ice, thereby indicating that the water often passes over the islands. The weather was not favourable while I was travelling up the west branch of the Mackenzie, and I only succeeded in getting three observations between Herschel Island and the mouth of the Peel River. At this last-named point we left all our freight, together with the women and children, and we had some difficulty in getting up the Peel, being forced to tow our empty boats all the way by means of dogs. On arriving at Fort McPherson, I heard from Mr. Firth that he was very short of supplies, and that he could not, therefore, let me have any; so I went to see M. Jacquot, who was in charge of Messrs. Nagle and Hislop's trading-post, and from him I bought for 362 dollars a quantity of supplies, of which I give the schedule:

			lbs.
Flour		 	 500
Rice	• •	 	 50
Oatmeal		 	 48
Sugar		 	 50
Coffee		 	 10
Syrup		 	 5
Candles		 	 2
Tobacco		 	 20
Soap		 	 2
Baking-powder		 	 3
Tea		 	 50

In addition to these groceries, I purchased from him some miscellanies:

Two four-point blankets.

Two dozen fish-hooks.

One dozen handkerchiefs.

Six bundles of babiche (sinew for sewing and lashing).

One thousand 22-calibre cartridges.

I likewise took up with me a number of instruments and the like which I had left here the year before; but I had none of my own food-supplies remaining, for the reader will remember that I had parted with them before I left, not expecting to return to this place.

The supplies just bought seem, when thus tabulated, to be a goodly stock; but in reality they were scanty enough when fourteen people had to subsist upon them for eleven months, and I was at a loss to know where we should find game with which to eke them out. After some hesitation I decided to go into the Eskimo Lakes, which lie on the east side of the delta of the Mackenzie; and on September 18 we started off with all speed from Fort McPherson. to get into winter-quarters before the freeze-up. Fortunately, a fair wind and current took us down the Peel much faster than we had come up; and, taking women and children on board, together with the supplies we had left here, we started up the Mackenzie to Point Separation, where I had arranged with an Indian to meet me. I had told him also to bring all the things stored away for me in the previous year at the Arctic Red River. These were:

> Three sledges. One canvas boat. Furs. 100 pounds of acetylene, and lamps. 5 gallons of methylated spirits. Extra "Primus" stoves. Boat-covers. A telescope. A chest of tools. Waterproof paint. Nets.

All these things loaded the boats down to the gunwale. After taking some observations, I set off down the east branch of the Mackenzie. Time was now very precious, so we travelled day and night, stopping only to catch fish or shoot rabbits, and taking it in turn to rest while we were still travelling. We were now in the last week of September, and, much as I dreaded journeying on these rivers and lakes at this season, I was bound to push on. Seldom did a day pass without a snow-storm. The wind was mostly in the north, and directly in our teeth; ice was forming on the shore, and we often had to tow our boats. It is hard to realize how cold and wretched travelling becomes under these conditions, the more so when you have to make a point before everything is fast locked up. Nevertheless, I had much to be thankful for, since I had all my instruments with me, and was able to keep up a prismatic survey of the course of the river, the breadth of which I found to be from 500 to 300 yards. I succeeded, likewise, in getting five observations before we were finally frozen in.

After leaving Point Separation, we came to a very shallow place about half-way between this point and what are called the Lob-Sticks. At the last-named spot the river turns sharply to the east. These Lob-Sticks, which are supposed to have been trimmed by Commander Pullen some sixty years ago, are two pine-trees. The branches have all been cut off, but the tops remain. One of them is a very fine old tree, and the other, which is much younger and smaller, stands directly in front of its nobler brother. Directly in mid-stream you are confronted by the

south point of an island which has a large area, and on the west side of which runs the main branch of the river—a broad and magnificent stream which I should much have liked to explore had opportunity offered. All the islands down to the divergence of the east and west branches are thickly timbered, and on the east bank of the east branch the trees extend within sight of the south-west point of Richard Island. At the Lob-Sticks we caught some fish in our nets, and, opposite to the next little river that comes in from the east, I saw on the west bank a large boulder—a solitary specimen of its kind in that locality—which is known to the natives as marking a place where big pike may be plentifully caught by fishing with hooks under the ice. The banks of the Mackenzie show a rise of 40 feet, which is attained in the east branch when the ice is being swept out of the river, and these banks are all mud. Proceeding in our whale-boats from the Little River to the Small River, we had a wretched spell of weather. -head-winds and snow-storms. At one time I almost abandoned my survey, but by carefully pacing the distance on the shore, and by continually checking my direction, I was able to continue the work. There is no mistaking the Small River, for just before you come to it you descry a lofty landmark—to wit, a precipitous cliff which is directly over the fork of the more northerly branch that enters the Mackenzie at my twenty-seventh camp. At the mouth of the Small River we caught several huge pike, one of which I weighed and found to scale 42 pounds. They were excellent eating, but they tore the net to pieces. This stream is 50 yards wide,

and is thickly timbered on both banks. We had to tow our boats into the Long Lake, which was covered with a newly-formed sheet of ice. I was anxious to cross over to the east side of this lake for two reasons: in the first place, I wanted to make as great a part of my journey as I could by water; and, secondly, it would have been unsafe to leave a boat in the river, on account of the spring flood, which rises, as I have hinted, several feet above the river-bank. camping, therefore, for one night, and catching a number of fish, we set out across the lake, breaking the ice in front of us from the bow of the boat. This was a most arduous task. I did not like my Eskimo to get their boats cut by the ice, so I led the way with my own boat, clearing a passage as I went. After we had passed two islands, which are low, sandy banks covered with willows, we found the water much deeper and free from ice, so we were all able to sail across to the east end of the Long Lake; and this was as far as we could get by water.

Here we unloaded our boats, and built a staging on which to stow away their contents. I had some idea of wintering here if we could find deer and fish. So far we had managed to live by our guns and nets. and my supplies were consequently still untouched; so I trusted to having no need of breaking in upon them until winter set in. We dismantled our whale-boats, and took them into a bay on the north side of the lake, where we pulled them up on the shore, and left them there for the winter; but, since we had been unable to drag them above the high-water mark, it would be a matter of urgent necessity that we should be on the spot in the spring before the water rose.

CHAPTER X

PREPARATIONS FOR WINTER

September 29 to October 20, 1906

Geographical features—The east branch of the Mackenzie—The legend of the lakes—Short rations—Fishing under the ice—Prospective plans—Scarcity of game—Tranquil smokers—Starving dogs—An indigestible meal—I decide to move camp—Final arrangements.

The country in which we now proposed to make our winter-quarters calls for a few words in explanation of its geographical features. The Long Lake is 13 miles in length and 5 in width. On each side of it there are high rocky cliffs, which can be traced on the south-east side from the bend in the Mackenzie, at the Arctic Red River, to the coast at Liverpool Bay. On the north-west side of the Long Lake, the hills which divide the Eskimo Lakes from the coast are first seen at the fork of the Small River, and they can be traced on the west side to the coast.

The east branch of the Mackenzie flows close under these hills. The position of our present camp at the east end of the Long Lake was only 8 miles from the height of land which divides the waters of the Mackenzie from those of the Eskimo Lakes, and this height looks as if it might have been built up by the action of the waters of the Mackenzie River—

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as if, in other words, the east branch of that river had passed through this valley long ages ago, and had emptied itself into the ocean at Liverpool Bay, instead of at the south-west point of Richard Island, as it does at the present day. This conjecture is rendered at once interesting and plausible by a legend which is current amongst the Kogmolik Eskimo. One of their ancestors, they declare, brought the sea over the land to the river, and when the ocean receded it left the lakes behind it, and left them, moreover, plentifully stocked with fish as a provision for his offspring through the ages to come—a myth which may well have been devised to explain the conformation of the country.

The first thing I did after pitching my camp by the Long Lake was to take an inventory of all the food, and carefully to calculate how we were to make our resources last out until next July: this notwithstanding my assurance that we should be able to get wild-fowl by June 1, as also plenty of fish after that date. I put aside, therefore, the bulk of my supplies in readiness for the spring journey, or against a time of downright starvation. The only provisions which I did not thus prudently hoard were the flour and the tea. These I doled out in instalments—50 pounds of flour and 2 pounds of tea being served out every fortnight.

We made a good beginning by getting eighteen or twenty fish a day. The number, however, did not increase, but dwindled as the ice began to form on the lakes. There were fourteen of us to feed, as well as eighteen dogs; nor were there any rabbits, ptarmigan, or deer to be shot. I had four nets put down

By H. W. Jones.

INDIAN CAMP ON THE MACKENZIE RIVER.



in different parts of the lake, and the men and women would turn out and fish under the ice the livelong day, only to return at eve empty-handed. We made, therefore, but a poor livelihood, and I could see that it would be necessary to move our camp as soon as the snow should fall and be fit to travel upon. In which direction to move was a difficult question, and the Eskimo wanted to go back to the Mackenzie River, saying that we should, at any rate, get plenty of rabbits there, which was quite true. Having slept over this question, as we say, I went off early one morning, and walked to the end of the range of hills which formed the northwest side of the valley that lay between us and the Eskimo Lake. From these hills I hoped to see some signs of deer. After walking some twenty miles, I came in sight of the first of the Eskimo Lakes. It stretched like a great sea in front of me, and was only partially frozen over. From the top of this range I likewise got a very good view of the valley to which I have just referred. Seen from this elevated standpoint, it was thickly overgrown with willows, which were interspersed with a few lakesunpromising ground for loaded sledges. Nevertheless, I thought it best that we should go on to the Eskimo Lake, and try our luck there, so soon as ever the ice would bear and sufficient snow had fallen. On my return to camp I announced my intention to the Eskimo, and told them to go and see if they could find a good route for the dogs and sledges. They went off accordingly, and reported on their return that the trail would be very hard for the dogs, as it would lead through a thicket of willows;

but I told them that to remain here would mean losing all our dogs. We knew, further, that the country through which we had just passed was devoid of deer, whereas the country ahead of us looked a likely one for game, and there would probably be fish without number in the big Eskimo Lake. I arranged, therefore, to go out next day with the natives along the range upon which I had walked that morning, and should we then think it impossible to tool our sledges through the valley, we could travel by the hills. The day broke bleak and wretched. It was 20° below zero, and the wind emphasized the fact. We started off, however, and after climbing to the top of the nearest hill we put up a snow-wall to shelter us as we sat peering at the country round us through our telescopes. The indifference with which these people calmly sit down in all temperatures and storms and smoke their pipes is very trying till you have got used to it; when you have done so, you follow their example without finding it disagreeable. It is true that the smoking of a pipe is not a very long process with them. The bowl is about an inch deep and less than half an inch in diameter, and it is made either of wood, of metal, or of stone. The smoke is a matter of half a dozen puffs. These, perhaps, take a little longer to inhale, since they are drawn through a wooden stem that is a foot in length. One would think, indeed, that the Eskimo, like schoolboys, "snatched a fearful joy" out of their tobacco, since they tackle so minute a load of it at so respectful a distance. Still, they go bravely to work, and, when they have exhausted their six whiffs, they fill the pipe a second and yet

a third time; but, when all is said and done, eighteen puffs are not an extravagant allowance at a time. When they get into bed at night they smoke a final briefly meditative pipe, lying on their bellies.

Under this wall, long after these short-lived Nicotian ecstasies had come to an end—in fact, for two hours and a half altogether—we sat and talked about the best way to go; and at last we made up our minds to try the valley, where we could see several lakes and a small river which emptied itself into the Long Lake. My greatest trouble was the thought of the dogs, which were now getting very poor, whereas it is important that dogs should be in good condition at the beginning of the winter. How utterly starved they were may be guessed from this incident: Eiăki used every day to visit a net (which was put down in a very deep part of the lake, and had not vet been frozen over) in a kayak. This kayak was always left on the shore; but one morning there was nothing left of the boat—nothing, that is, save only the willow frame, which had been covered with white whale-skin. This whale-skin, with the exception of a few mangled fragments, was now inside the dogs. How they managed to chew it up I do not know; but skin, after all, is animal substance, and is therefore more digestible than canvas; yet it is no uncommon thing for the harness, which is generally made of canvas, to be eaten up by very hungry dogs. In this way one of my dogs met its death when I got to Eskimo Lake—it swallowed all its trappings, and died, consequently, in great agony a few days after. In neither case did I witness the actual operation of gorging, but the facts all too

plainly told their own tale, so that I may claim virtually to have beheld these canine orgies; and I have therefore no hesitation in offering these two "dog stories from a spectator."

Seeing that it was impracticable to take the whole cargo on our journey, I told the Eskimo that I would first take the sledges on which I would put my telescope and my other instruments, together with two nets and so much food as we could carry. I would also take Eiăki and Kokatū with me, but would leave the women and children in our present camp with two men. Eiăki and Kokatū were to accompany me to Eskimo Lake, where they would leave me by myself while they returned to fetch the women and children, with the remaining part of our freight, leaving, however, one man behind with a couple of nets, since we were then getting about eighteen fish a day. If we could not find any game, we would return to this camp. Everything being thus arranged, we packed our sledges with the heaviest and most bulky things. In addition to the instruments and food I have just spoken of, we took the acetylene and the coal-oil, together with the cartridges, gunpowder, and shot. Each sledge was thus loaded up with 500 pounds, and we started off on our foraging expedition on October 20. I had done a good deal of work here—had plotted my journey from Fort McPherson, and had worked out all the observations. Many of them had been taken at this camp, but, despite my efforts, I had, unfortunately, obtained no occultations. This ill-success was due to the weather, which was as bad as one must always expect, after all, to find it at this time of year.



KOKAT $\overline{\mathbf{U}}$ FISHING UNDER THE ICE.



INDIANS ON THE TRAIL.



CHAPTER XI

WINTER

October 20 to November 30, 1906

The start—Dogs and sledges—A toilsome trail—Climbing a tree
—Over the watershed—First sight of Eskimo Lake—Spreading the net—A barren country—Expectant dogs—A feast—
Alone—Cold work—Arrival of the natives—Trouble with an
Eskimo—The journey continued—A meagre larder—A lucky
find.

THE conditions under which we set out were not encouraging: we had a very bad trail ahead of us, and our dogs were in a shockingly poor state; whilst the most we could get from the nets and hooks that morning was ten fish. These fish, which we put upon the sledges, were all that we had to feed ourselves and the dogs upon until we got to the Eskimo Lake. I did not like to take away with me everything that there was in camp in the way of fresh fish-not, at least, without leaving something to replace it—so I gave out another 50-pound sack of flour to support the women and children during our absence. I must here add that the women had fully earned my utmost consideration, for they had done all they could They had been to get us fish for our journey. out all night on the ice with their hooks, but only This Juliana one of them had caught anything.

Berners was Eiāki's mother—a most indefatigable, if elderly, votary of the craft—and she had caught two trout.

We had only Arctic sledges with us, and they were poor things for travelling inland where the snow lies Our road lay north-east for 18 miles through the centre of a broad valley that was thickly grown with trees, most of which were willows. This valley, which looks very like the old bed of a river, is about 5 miles wide, and is flanked on both sides by ranges of hills that rise 200 feet from the valley itself. Eight miles north-east of our camp, as I have mentioned in the previous chapter, is the height of land which parts the waters of the Eskimo Lakes from those of the Mackenzie River, and I wanted particularly to get to the top of this watershed before we camped, for there were numerous tarns there over which we should have easier travelling. We had a toilsome day, for we had to cut a trail through countless thickets, and we were constantly lifting our sledges—in some cases yoking two teams of dogs to a single sledge, and then returning with them to fetch the one we had left behind. There was a biting wind from the north, and the spirit thermometer stood at 31° below zero. So far as possible we kept to the lakes, often going out of our way to get on to them. One jungle of a place to which we came was particularly troublesome: clearing a trail was here even a more laborious task than previously. In such a place you cannot see ahead of you, so Kokatū went off to a tree which stood hard by, up which he climbed to have a look around. This tree was a slender pine of 50 feet in height, and as Kokatū, cat-like,

mounted it the trunk bent over more and more, until when he was near the top, it looked as if it would break off utterly. So afraid was I of this happening that I told him not to go any higher; nevertheless, he persisted until he reached the top, where he sat on a very frail bough, and scanned the country through his telescope. These people really do not know what fear is. The fellow sat there calmly for some ten minutes; he then descended, and took us off on to a lake which we were glad to reach. We travelled that day for fourteen hours before we came to the height of land, and though we never halted except to give the dogs a short but necessary rest, whilst the natives set traps, we only made 8 miles in that time. Our supper was a meagre smack, for we only had a fish each and a cup of tea to wash it down, whilst the dogs had only a quarter of a fish each. Next morning we started off early, with nothing inside us but a cup of tea, and travelled all day through the same sort of country as on the day before, until we got to the south end of Eskimo Lake. This was a magnificent, if desolate, sight—a noble sheet of water, bounded on the east by precipitous hills that rose some 300 feet above the lake, and on the north by two prominent landmarks. At this point where we had come on to the lake a little river emptied into it, which we had followed for the last two miles. Having stood for a brief space gazing at the scene, we fell to work upon the ice, which we opened sufficiently to put our net under it. The depth of the water below it was 4 feet, of the ice itself about a foot; and we had no difficulty, therefore, in making six holes with our ice-chisels. holes extended in a row at intervals of about 6 feet

right across the stream. To the end of the line, which ran through the top of the net, a stone was then fastened as a plummet, so that no sooner was the net lowered than it sank to the bottom. One of us went thereupon to the next hole; through this he poked about with a willow-stick, which had a crook at the end, until he caught the line, which he then pulled up to him, and dropped again, so as to be able to get hold of it once more through the third hole; and in this way the net was spread out to its full length.

On this "net income" both we and our dogs were dependent for our supper that night; moreover, if fish could be procured here, I meant to send my natives back for their families and to pitch our camp Having spread the net, we then put up our tents on this point of land which runs out into the lake, for the Eskimo will never camp in timber, but always in the most exposed places. It certainly was a bleak spot, with that grand but cheerless sheet of ice that lay spread out before us, the wild magnificence of the lake being due to its own majestic proportions (20 miles by 7), and to the rocky sides of the hills which formed its south-eastern boundary. We had set out our net at about 5 p.m.; at 7 p.m. we visited it to see whether we were to abide in this place or not. The dogs meanwhile, which had been taken out of their harness, all lay curled up in the snow like so many dead things; yet they were by no means dead, for, so soon as ever we made tracks in the direction of that net, up they all sprang as if they had received an electric shock. Well they knew that the question of that night's supper would now be settled

for them one way or the other—probably "the other." It is sad to see such faithful workers gazing with a wistful look of expectancy—of expectancy which half expects to be disappointed. Their heads are eagerly bent down, and they snarl savagely one at another, jealous of any competition for a bite of food—a rapturous mouthful after two days of starvation, yet of unflagging toil. It is piteous to see the poor beasts thus—piteous to be often compelled to get so much out of them whilst putting so little into them.

And now for the net! Perhaps it would have been wiser to leave it down a little while longer before examining it. For if there were no fish in it, to reveal its emptiness would be to destroy the only thing we should have to feed upon—hope; whilst even if there were some fish inside, the take would therefore, perhaps, be larger if we waited longer. Had the meshes been knitted by the Fates themselves, I could not have been more anxious.... Eleven fish! They were mostly pike, which weighed from 15 to 20 pounds; there were also two small white-fish and one trout. It did not take us long to light a fire, and in less than an hour we were all seated around the glad blaze, each with a steaming hot fish in his hand.

Does this way of living appear to you, reader, as barbarous? To be sure, you would turn up your nose at a Metropolitan eel-pie or at a platter of "fried fish and chips"; but pop fish of your own catching straight from the net into the kettle, seat yourself in the joyous glare of a camp-fire among companions whose own way of life revives the long-

dormant faculties of primitive man in you; above all, season your collation with that best of sauces, a down-right Arctic hunger, and you would not exchange the repast for the daintiest banquet to which you could be honoured with an invitation in your own country. The Eskimo's first care had been to feed the dogs, which took their portion—a very ample portion of 3 pounds apiece—au naturel. Indeed, it would have been painting the lily to cook these fish, for before the death-chill had fairly set in upon them they were down the dogs' gullets.

That night, as we sat enjoying our feast around the fire, I tried to picture to my messmates several herds of deer which would surely be awaiting them tomorrow in the neighbouring hills. I wanted the dogs to have a rest, and if only the men could kill a few deer they would have welcome tidings to bear to their wives. It was arranged, therefore, that tomorrow they should hunt for deer, and in their absence I was going to fix up my telescope, and to measure a base out on to the ice in order to do some triangulation. These plans for the morrow being settled, we turned in for a good night's rest.

Next morning there were thirteen fish in the net, so we all had a good breakfast. Eiăki and Kokatū went out to look for deer, whilst I made plans for carrying out my survey and extending it to the other end of the lake. We had forgotten all about our troubles, and only looked forward to finding plenty of deer in the neighbouring hills; but, when the Eskimo returned that night, they reported having seen no tracks except an old one, yet they seemed to

think that they would find deer here when they came back with their wives and children. We again got eleven fish, which helped the dogs very much, and on the following morning Eiăki and Kokatū returned to the Long Lake with all the dogs, but left one sledge behind them. I was now alone, so I had to attend to the net twice every day. I am glad to say that I was so far fortunate as to secure ten fish on the average each time (or twenty fish in the whole day) for the first three days; after this the catch began to fall off. We did not have very cold weather-my thermometers stood at 20° below zero—but even in this temperature I found it very hard to extricate the fish. The pike made a sad muddle of the nets, twisting themselves up into a hopeless entanglement; but it is necessary to unravel them at once, for you have no sooner drawn the net out of the water than it becomes frozen, and if it freezes before you get the fish out of it you have to soak it in the water again. I particularly wanted the Eskimo to know that I was not wholly dependent upon them, and so I always attended to the net very carefully twice each day, nor did I put it back into the water before I had got it quite free from all complications. I should not wish my greatest enemy to have this job, for nothing could be more irksome in these temperatures. After extracting a fish I had to run up and down the river to keep myself from freezing, and I used to put my fingers in my mouth to take out the numbness. Except for this ordeal my loneliness sat lightly upon me: I was never for a moment idle, but I certainly dreaded having to go to the net, and, though I only had to do so twice a day for seven days, it took all

the skin off my fingers, and they were so badly frozen that I could not write. I was overjoyed, therefore, to hear the dogs returning, the more so as I had plenty of fish for them. It was a curious sight to see my natives arriving. They had four sledges, which were piled high with deer-skins-some of these last being in actual use for bedding, and others being the raw material for boots and for clothing during the approaching winter. On top of this pile sprawled some of the youngsters, as likewise, indeed, some of their more decrepit elders; other children, ablerbodied, walked beside the sledges; whilst the women (in North-Country phrase) were "thrutching" (i.e., thrusting) behind with the aid of their pushingsticks. These are short, stout staves, universally used amongst the Eskimo for this purpose. The bottom end of the stick is applied to the loaded sledge; the other end, which thickens out into a knob, rests against the shoulder; and in this manner lusty pushing is done. If you had to do that pushing yourself you would perhaps find that the appearance of gleeful pageant which it takes on when done by others is a little deceptive. There had been several snow-storms during the last two days, and the trail, which had got filled in, had taxed the dogs severely. The Eskimo had left one man on the Long Lake with a net, and at the time of their departure he was getting about seven fish a day. I had just amassed sixty fish here, but what were they amongst so many -thirteen hungry people, and seventeen equally hungry dogs? If we should not succeed in finding deer the outlook would be very cheerless. So soon, therefore, as the party arrived I made the men put



WILD ROSES ON THE MACKENZIE. By H. W. Jones.



VIEW ON THE ATHABASCA RIVER.



down two more nets, while the women fixed up the camp. One of these nets was set at the very mouth of the river; the other, a larger one, they went farther out on to the ice before spreading. Lastly, I got the men to go out in quest of deer, while the women fished with hooks under the ice and looked to the nets. Though we worked as hard as ever we could, we only got, at the most, fourteen fish a day; nor did the hunters anywhere come across signs of deer. In a very short time we were as badly off as ever; it was a perpetual uphill struggle to feed so many. On some days we would do a little better than on others, and we would then get a fish each for our rations; but then, again, we would have little or nothing the next day. The dogs, too, were so dreadfully run down that I was doubly anxious. present I was allowing 100 pounds of flour a month: this amount I could not exceed; but I was convinced that there must be deer farther on to the east, so I decided to pursue our journey. This I thought we should be better able to do if somebody went back to the Long Lake and fetched a load of fish, for the man I had left there would surely have brought his catch up to a hundred by this time. I told Eiăki what 1 wanted doing, and asked him to go back to the Long Lake and fetch the man, together with the net and all the fish which had been caught in it. Eiäki agreed to do so; but before going to bed that night he came to my tent and asked me to give him some flour for the morrow's journey. With this request I could not bring myself to comply, especially as I had refused the same petition when made the day before by Kokatū. The latter had spoken to me in some

such words as these: "My child is hungry, and is crying for flour (píleuvuk); will you give me some?" To this I had made answer: "We have used up the fortnight's allowance of flour. What would your child do if he had no flour to cry for? Other Nūnātāmā have no flour." To this Kokatū had not made rejoinder. I now pointed out to Eiăki that I really could not use any more flour; when he got to the Long Lake he would get plenty of fish for himself and for his dogs. He said nothing, but went to bed, and next day, to my surprise, he went out fishing on the ice instead of starting on his journey. I sent for him that afternoon, and asked him why he had not gone. His only reply was that he was going, but that he wanted some flour. I simply told him that he could do what he liked, but that, if he did not go that night, I should not let him work for me any longer, and that he would in that case have to give me back the rifle and cartridges which I had lent him, and the tobacco which I had given him. I was sorry to have to talk to Eiăki like this, but I was quite alone with these people, and if I allowed him to have his own way and gave him more flour, there would be no end to this sort of request, but a speedy end to my provender; they would eat up everything I had, and then in a very short time, if they left me, I should probably be hard set to keep myself. The Eskimo had hitherto done whatever I told them to do, and this incident, therefore, came as a surprise. Next morning Eiăki came into my tent bringing the tobacco which I had given him; he also brought back the Lee-Enfield cordite rifle, and all the cartridges and fish-hooks which I had lent him, and without saying

a word, he laid everything down on the ground and went his way. I took this behaviour as a signal from him that he did not wish to work for me any longer, and I at once called in Kokatū, whom I told of Eiăki's refusal to comply with my instructions. I then asked Kokatū to go over to the Long Lake, and to bring back the net and the fish (the man we had left there belonged to Eiăki's household), and I made up my mind at the same time that unless Kokatū did what I wanted I would dismiss him likewise. would go back to the lake myself for the things I wanted, and would resume the journey alone with my own dogs. Kokatū, however, said he would go and harness up his dogs, and straightway he started off. This pleased me very much, and I realized what a good willing fellow he really was. That day he went to the Long Lake by himself with six dogs, and on the next day he came back with the net and with seventy fish. I at once resolved to go to the northeast end of Eskimo Lake with Kokatū and his family; but since our load could not be carried thither in one journey, I told him that I would take a sledge with him as far as we could go in one day, and would return the same night to bring on his wife and children and the rest of the load. This plan we executed on the very next day, which broke stormy and miserable; there was a high wind, and the snow was drifting thickly; we could not see anything when we were on the lake. But, still, I was determined to start, for I knew that if we did not find a new camping-ground while as yet we had fish, we should be forced to eat up some extra food out of the provisions which I was so jealously keeping in store

against yet more evil days which were impending. We started off, therefore, without delay, keeping close in to the shore instead of going straight across the lake. We had two sledges and eleven dogs—the other six dogs we had used belonged to Eiăki-and, in spite of the strong head-wind, we travelled twelve miles before putting our load into a cache late that afternoon, and making a cup of tea. We then started off to bring Kokatū's family and the rest of the supplies. The storm had not lessened its fury, but the wind was now at our back, and our sledges were light; still, it was 3 a.m. before we reached camp. The whole of that day we rested, but on the day following we started off-Kokatū and myself, his wife, his mother, and two children-with four sledges. We only went five miles that day; we then camped, and, making five holes in the ice, we set fishhooks, but caught nothing. On the following morning we journeyed on to the cache. By this time, needless to say, we were again out of fish, so I had to break in upon my scanty supply of oatmeal, and the poor dogs fared no better than that of Mother Hubbard. We still had ten miles to go before reaching the other end of Eskimo Lake, and I thought it best to make an early start, and to leave in the cache, which we had made three days before, everything except 16 pounds of oatmeal, a 50-pound sack of flour, our tents, rifle cartridges, and nets. We set off betimes, therefore, and came to a small river where there was open water; and here, to our great joy, we could see a number of white-fish. really seemed providential, and we were not long in setting a net. But our astonishment and rapture

were unbounded when we visited the net, and took out of it sixty fine fat white-fish, which weighed about 3 pounds apiece. We soon had a glorious fire blazing, and our camp that night was a happy one, though my thoughts wandered back involuntarily to poor Eiăki. I felt so sorry to have parted with him, and thought that perhaps it was my fault in not understanding him.

CHAPTER XII

CIMMERIAN DAYS

November 30, 1906, to January 19, 1907

Hard work—Building two houses—Sun below the horizon—Arrival of Enuktū—How the Eskimo travel—Ulūuluk—News from the coast—Natives starved out—Arrival of a friend—Prospects of getting fish—Stubbornness of the natives—Making plans for a journey.

THE windfall described in the previous chapter wrought upon us, curiously enough, the same effect as had been produced by the "accursed frenzy of our maws," if I may once more borrow a Roman poet's phrase. Anxiety to stave off utter starvation had forced us to leave no stone unturned in the effort to catch fish, and anxiety to make the most of the godsend which had been granted us caused us not less briskly to bestir ourselves. Speedily we had two nets spread in the river, and all round the mouth of it we diligently set our hooks each night. The daily take of our nets was from sixty to eighty white-fish: on December 23, indeed, we got ninetyone fish in a single net; and nine hooks out of the fifteen which we put down by night generally had loche attached to them next morning. During the daytime the women fished with these hooks under

the ice, and nearly always caught about fifteen trout each.

Here, then, it was clear that we had at last struck a streak of luck, and the English landowner who should come upon a rich vein of coal in a hitherto unproductive estate would be as likely to sell his land at its original value and to migrate to one of the colonies as we were likely to shift our camp from this favoured spot. Five or six dozen fish in the net were worth any number in the untried waters that lay beyond us, wherein, as in the sea, there were doubtless more fish than ever came out of them; whilst in no country have I ever travelled such long distances and found so little game. We could not find a trace of deer; but in trapping we were more successful, for Kokatū, who set some traps for foxes and a few also for marten, obtained by this means some beautiful furs. I remember how on one occasion he found in a trap the leg of a black fox, which the animal had bitten off to set itself free. Now, a good specimen of a black fox will fetch, for the sake of its skin, as much as 500 dollars, and Kokatū was anxious, if possible, to recover his prey. To do this he followed up the track during the entire day and night. At one time he was almost forced to give up the pursuit, since the track kept winding round and round, crossing itself several times: but eventually the blood-stains led him to a tree beneath the roots of which the fox had taken shelter. After working for several hours, Kokatū dug the animal out, and dispatched it with a blow on the head from a stick.

There was no falling off, meantime, in the pro-

duce of our fishing; so here I decided to build two houses-one for Kokatū and his family, and the other for myself. There was no dearth of wood, for the banks of the river and the shores of the lake were all thickly timbered. We cut down about two hundred trees, scraped away the snow from them, and then gathered plenty of moss off the river-banks. In building each of the houses, we first set two uprights into the ground: they stood about 6 feet high and about 8 feet apart. Into the top of each of them was then let one of the ends of a cross-bar. On one side of this structure, but at opposite ends of it, were yet two more tree-trunks, which both leaned at the same angle, each against an upright. These sloping beams served as roof-props: they rested on the ground, but were not sunk into it, and they were notched at the upper end, so as to fit into the tops of their respective uprights. The cross-bar thus joined the peaks of two triangles, the base of which was made by the ground, and these triangular spaces were walled in with logs, which were neither mortised at the top nor sunk into the ground, but stood on end against the prop, leaning slightly in towards the centre of the house. It should be needless to say that the farther each log stood in its row from the upright the smaller it was cut. There now remained two more blanks or empty spaces to One of them was enclosed between the crossbar, the ground, and the uprights, and it was walled in with more trunks, which, like the logs aforesaid, stood on end in a row, slanting in very slightly towards the building, but neither sunken into the ground nor mortised into the cross-bar. In this wall

a very low and narrow gap furnished the doorway. The other space, which was also an oblong, was enclosed between the cross-beam, the ground, and the roof-props; and it was covered with a row of trunks that were laid horizontally, one below another, so that each end of every trunk rested on one of the props. The roof was thus a continuation of one of the walls, or, to speak more exactly, the fourth wall was merged in the sloping roof. Between the separate timbers of each house we then packed moss which we had gathered. This made the building tight and snug, and, to render it still further weatherproof, we banked it over, roof and all, with a covering of snow two feet thick; and I can answer for the house in which I was lodged being most comfortable. There was, however, no window in it; but Kokatū said he would put one in when the sun came back The latter was now below the horizon, but we had the Northern Lights both by day and by night, and when the moon was up it was as light as day with We had built our houses about two miles from the nets, where the wood was still more plentiful (it takes a lot of wood to build a house), and Kokatū visited them with his wife every day, while his old mother spent the whole day fishing under the ice. For my own part, I was never in day or night. Often I went long distances from camp; and Kokatū had to attend to his fox-traps, which were sometimes set 20 miles away. It is a great mistake to think that when the sun in these latitudes is below the horizon travelling must needs be at a standstill. During two out of the three winters I spent in the Arctic I passed six or eight weeks at a time without seeing the sun, but was never thereby hindered from travelling. On the snow it is always luminous. With the grand display of Northern Lights, which are always in the sky except when it is blowing hard, one can see far enough to travel without any inconvenience. The Eskimo live much the same life at that time of year as they do at any other; nor is the weather then so cold as might be supposed. It is precisely, indeed, during February and March, when the sun returns, that one seems the most intensely to feel the cold of the Arctic winter.

It was while the sun was still below the horizon that we were surprised one morning by hearing dogs; and a Nūnātāmā—by name Enuktū—came into our camp from another camp 25 miles east of us -so little do the natives heed the absence of sunlight. Enuktū was out looking for deer. He was quite alone, travelling over the country without any trail, when he came upon one of our tracks, which he followed into the camp. This native brought me a large and varied budget of news. He told me that Mr. Stefansson was on his way to my camp; that there was a whale ashore at Toker Point; and that several natives had been starved out between us and the coast, whither, in consequence, they had gone to live upon the whale-blubber. Kūnuk, I likewise gathered, who was Kokatū's brother, was encamped 25 miles north-east of us, where he was every day expecting Mr. Stefansson, whom he meant to bring on to us so soon as the latter should arrive. When Enuktū came to us he had not got a morsel of food on his sledge, and, had he not found our camp, he would have fished with hooks in Eskimo Lake,

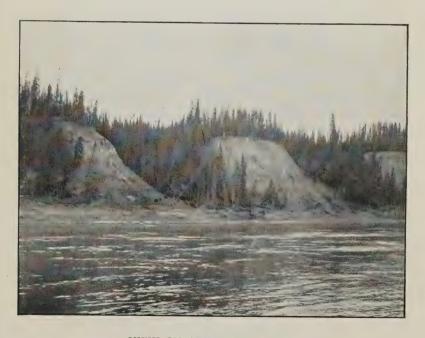
and would then have returned by another route, on the chance of seeing some deer-tracks. It is in this way that the Eskimo go trapping and hunting when the sun is below the horizon. The only difference in their hunting is that when they have sunlight and can see far, they sit on the tops of the hills, looking for game with a telescope; whereas, when they hunt during the winter, they are examining the snow all the time for fresh tracks of the animals of which they are in quest-deer, foxes, marten, mink, lynx, rabbits, hares, ptarmigan, or wolves. In the same way they scrutinize the lakes for fish—though this, to be sure, holds true of all seasons. On these occasions they have everything with them-including fish-hooksthat are used for snaring any of these animals, which are all eatable. On powder and shot there is, therefore, no necessity to be the least dependent. Enuktū, for example, had everything he wanted for obtaining the means of subsistence. He knew that he could get food anywhere, and did not even need a fire to cook it, but would just let his meat or fish get frozen, and would then eat it raw. This may seem strange to my readers, but I can assure them that the raw flesh is very palatable, as it is, doubtless, also most wholesome. It is, perhaps, this raw food which, only less than the outdoor life, keeps the natives from getting scurvy—a disease unknown amongst them. Failing to find food, Enuktū would not have been at all alarmed, for he had often before gone many days without bite or sup. stayed with us for one day, and then returned to his own camp, saying that he was going to bring his companion-who had a wife and child

—over to our camp, and would then start for the coast.

About a week later we had another visitor called Ulūuluk, who brought me some dried fish (pipsi). He was trading among the Kogmolik at Innāluk, and was on his way to the Arctic Red River, to get, if possible, some tea and flour. He had two sledges and twelve dogs, and he stayed with us for one night. From him I picked up more news about Mr. Stefansson, who had left the coast for my camp when this native came away. As that gentleman had not yet arrived, I thought that he must be staying with Kunuk. Before Uluuluk departed, I told him to call in on us when he came back. This he promised to do, and he took some letters for me to Fort McPherson. In consequence of the news I had just received, I got my camp ready for Mr. Stefansson's arrival, and two days later he came with Kūnuk, whose wife and children were also of the party. Mr. Stefansson had had a hard trip, having just come from Shingle Point, about 200 miles away. He had crossed the delta of the Mackenzie, and had travelled along the coast to Tuktuïaktok, whence he had struck inland to Kūnuk's camp, which was some 40 miles from the coast; and Kūnuk had then brought him on to us. My guest had even more stirring news for us than we had received from Enuktū: all the whalers, he told me, had passed round Point Barrow, but had not met the tender until they reached Point Hope in Behring Straits. Captain Levet had returned to Herschel Island, and was going to spend the winter there in the Narwhale. At Point Barrow he had



PELICAN RAPID, FORT SMITH.



VIEW ON ATHABASCA RIVER.



met Captain Mickklesen, who had announced his intention, when Captain Levet was leaving, of coming on to Herschel Island next day; but the Danish explorer had not arrived at the island. His failing to arrive made me think that he had gone straight across to Prince Patrick's Island, and I told Mr. Stefansson that I thought so. Later on, however, I received information which showed my conjecture to have been wrong. Captain Mickklesen, I found out, was wintering in Camden Bay, where Admiral Collinson wintered in 1853. I likewise learned from Mr. Stefansson that a schooner belonging to five Nūnātāmā had been wrecked at Shingle Point—no other, indeed, than the one to which I referred in Chapter V. as being the sole ōmiak-puk of which I had known any Eskimo to be possessed. This vessel was at Herschel Island when I left there, and Mr. Sten (a mate of the Bonanza) had brought it to Shingle Point with a number of Eskimo, who left him there. He then anchored near the coast: but a gale arose, which drove the ship ashore, turning it keel uppermost, and there it now lay. It must be admitted that news in this country is not more scarce than it is sensational. Until Enuktū had dropped in upon us I had been wondering what had happened to all those amongst whom I had till recently been sojourning, and within a fortnight abundant tidings had come-mostly bad. "No news," they say, "is good news"; yet one calls out impatiently for one's morning paper, and reasonably so. We are pained to learn that disastrous events have happened, but we are curious to know all about them if they have happened. If such be the

frame of a man's mind when he has his daily paper, imagine how intensified his hankering for news becomes when he is aloof from all information in a desolate land. He would be ghoulish if he gloated over evil tidings; but he would be something either more or less than human if he ceased to crave for any tidings at all. I will not, therefore, pretend that Mr. Stefansson's budget did not interest me; but neither will I pretend that it did not distress me. I had received cordial hospitality from the Eskimo, and was grieved to learn of the famine which had overtaken some of them, and of the shipwreck which had fallen as a serious blow on others. The announcement of this particular mishap, indeed, I would willingly have dispensed with for Kokatū's sake, since the poor fellow owned a large share in the wrecked schooner, and he was, naturally, very much upset when he learned of the calamity.

My thoughts, however, were speedily drawn perforce to more cheerful matters. A meal had to be got ready for my distinguished guest. Sooth to say, there were few things to offer him, but such as they were, I set them before him, and we fell to work

upon the frugal dishes of this menu:

Dried white-fish.
A baked trout.
Boiled rice.
Tea.
Sugar.
Bread.

The last of these items was what Thackeray would have called "discretionary," an adjective which implies in Arctic "swarries" a more literal solicitude for the bread-basket than is intended by the phrase pain à discrétion. The things which your native takes for granted become the luxuries of civilized life. Think how elaborate provisions are made (at great cost, no doubt) for ventilating the Hippodrome in London with iced air-a commodity of which we could thankfully have spared measureless quantities! Bread, on the other hand, which is "thrown in" with more generous viands without being separately charged for in our restaurants (like a Greek enclitic particle which does not carry its own accent), was here almost as rare and dainty as a bottle of Imperial Tokay would be deemed in an ordinary English household. Every state of life has its compensations if we will but reflect on them and make the most of them, and I think that my fellowtrencherman and I made the most of this diner maigre.

Mr. Stefansson kindly helped me to obtain some occultations, and to take various observations; the latter I was specially anxious to get at this time of the year. He had likewise sent me—so I then learned from him—some provisions from Shingle Point by a native in September; these were evidently somewhere on the Mackenzie, and I hoped that later on I should be able to find them. I was very glad to have an opportunity of talking to someone about what might be accomplished during the next year; and my companion, on his side, was able to impart further news to me relating to the country he had passed through. This last information was less dismal than that which had preceded it: he reported that fish and whale-blubber were plentiful along the

coast. This was encouraging, and I thought it would be well to make a trip to the coast so soon as Ulūuluk returned, for he had told me that he would sell me as many dried fish as I should wish to buy no inconsiderable amount, in all probability, since the fish which we ourselves caught were falling off in number now that we were in January. Thirty-five fish were the most we had got in the net at any time for some days past. I say in the net, not the nets. Originally I had set three nets, one behind another, right across the river, to find out whether the fish were going up stream or down. Where the river leaves the lake there is open water all the year round. and I was anxious to know what became of the fish during the winter-whether they were going out of the lake down the river, or coming up the river into the lake. The Eskimo hold that during February. March, and April the fish retire into the deep waters of the lake. Certainly there were no fish remaining in the river during that period, if the subsequent testimony of our netting was to be believed.

At the present time, however, we set a single net; but it was not the only one in the river: a man called Okiliak had come over with his wife and children, having accompanied Enuktū hither. There was yet another family—that of Kūnuk, who was now encamped here. As none of the new-comers had any flour or tea, and as they all took their meals with Kokatū, I could not refuse to give them a sufficiency both of tea and of flour. My provisions began, therefore, to grow "small by degrees and beautifully less," and as we were barely getting enough fish for, ourselves and for all the dogs, I resolved to make a

trip to the coast with Ulūuluk so soon as he should return, and to bring back a load of whale-blubber, together with some dried fish. I really intended to go to Shingle Point with Mr. Stefansson, who wanted to get to Herschel Island if I could take him with my dogs so far as the point.

On January 16 the sun reappeared for the first time, emerging barely above the horizon, and on January 17 Ulūuluk likewise reappeared. I told him that I would go to the coast with him, and that Mr. Stefansson would accompany me with Kokatū. This was all arranged, and Mr. Stefansson and I packed up our things to start next day. At 5 a.m. however, Kokatū came into my camp, and said that he wanted to lend his dogs to Ulūuluk, and to take mine to the coast to fetch a load of whale-blubber. This I would not allow; he was equally persistent, and I remained firm in my refusal. He then declared that he would go off with his family, and I could only wish him bon voyage. After a few hours' consideration, however, he decided to do what I wanted, and agreed to go to the coast with Mr. Stefansson and myself on condition that I would let his wife have more flour while I was away. To this I agreed, and he, in turn, agreed to go on to Shingle Point. I was very glad that things were thus amicably settled, as I should have been very sorry to see the last of him and of his family; and no sooner was our bargain struck than we harnessed the dogs and set off for the coast.

CHAPTER XIII

TRAVELLING IN MID-WINTER

January 19 to February 7, 1907

The country north of my camp—Beardless natives—A deserted house—The timber-line—A snow-house—Raw fish—Stormbound—Curious hills—Arrival at Tuktuïaktok—The chief's hospitality—Whale ashore—Imnāluk—Rotten fish—a crafty native—Disappointment—Kangianik—Departure for Herschel Island—An ancient native—Return to winter-quarters—Cold temperature—Frozen feet—Heavy load—End of a hard trip.

On January 19, at 9.45 a.m., we started off, hoping to get to the camp where Kūnuk had been living and fishing since the spring. The distance was about 25 miles, and there was a trail, whilst the country we travelled through was thickly wooded, and was dotted with a number of small lakes. All of these seemed to run into one another, and each of them was surrounded by high ground, the country northwest of my camp being particularly hilly. First we crossed two small lakes and then a long one: travelling was very good on the lakes themselves, but bad on the portages between them. After crossing the larger lake we ascended a steep hill: the latter commands a good view of the country lying north, and is one of the most prominent landmarks.

From the top of it you can see the first two Eskimo lakes, the first of which lies to the south-west of this hill, and the second to the north-east; you can also see a prominent landmark to the west. On the lake under this hill we stopped and made tea, whilst I seized the opportunity of jotting down some notes, for I was surveying the route with a prismatic compass, and pacing the distance. It was 1 p.m. when we stopped: the sun had already disappeared, and the thermometer stood at 35° below zero. It was here that I realized what an advantage it is to have no beard. The Eskimo never have any hair on their faces; but Mr. Stefansson and myself both had beards, which speedily became, as they always do, a mass of ice. It may be very dignified to have your chin congealed with icicles like Father Christmas, but the dignity is all too dearly purchased at the cost of comfort. Ever and anon you have to thaw out the crystal pendants with your hand before they get inextricably tangled in the beard and freeze your face. When we had made and drunk our tea, we went on over a small portage and onto a large lake, across which we journeyed. We were now not far from that other lake on which Kūnuk's camp was, but before we got there we had to pass through an awkward draw in the hill. On this we all got stuck, for the snow was very soft; there was only, to be sure, about half a mile of bad road, but it took us nearly an hour to get on to the next lake. After crossing several more of these small sheets of water we eventually reached the camp at 5.30 that evening. Here we found a house which had been deserted, and which was full of snow; on the roof, moreover, lay a

large piece of whale-blubber, which yielded some extra food for our dogs and for ourselves. I had taken with me from camp 2 pounds of tea and 8 pounds of oatmeal; this, with the blubber, was all we had to eat. The natives soon cleared out the house and kindled a fire, on which they cooked some food and made some tea. I wanted to get an observation here, but the night was cloudy, so I made up my bed and retired. The next morning we got a good start, and, passing over several hills, as well as over a number of tarns, we arrived at the third Eskimo Lake. Here a crossing of ten miles confronted us, so, as it was already four o'clock, I decided to camp upon a sand-spit. We had passed the last of the timber, so that a few willows which stuck up above the snow were the only trees visible. Kokatū and Ulūuluk now started to build a snow-house, while Mr. Stefansson and I rummaged under the snow on the neighbouring hills to get some dried willow-roots. Of these we found enough to boil a kettle, so we were able to wash down our supper of uncooked oatmeal with a cup of tea. When I came back the wall of the house was finished, and over it they threw a piece of canvas, thereby giving a finishing touch to our night's quarters. The thermometer only registered 28° below zero, so we did not feel very cold; oatmeal, moreover, is fine comforting stuff; but we were not able to give anything to our dogs. Next morning we set out at 8.15 to cross the lake: the passage took us two hours, and at the farther end of it we halted a space while we smoked our pipes. That afternoon we got to the house of a Nūnātāmā—Kaleruk was his name—who had some dried fish which he had just

got out of the net. Fingers were made before forks, and the most primitive stove is a man's stomach. Why get a fire to perform half the process which that primeval furnace is craving to carry on? If fuel were scarce and our kitchen-fire itself burning with a quick draught, should we extract the gas from the coal and ply the range with coke? Till you have eaten raw fish you cannot imagine how savoury a mess it affords; the freezing, moreover, takes off the crudity, so that there is nothing repulsive either to the taste or to the sight, and the fish is no sooner out of the water than it is as stiff as a poker. We did not, of course, stop to argue the point: in a word, we were anxious for our meal for better or worse without delay; and I have seldom had a better one. wind had freshened, and it was difficult to see any distance; it was impossible, therefore, in the drifting snow to continue surveying our route, as I had hitherto done, and as I had intended to do until I should have got to the ocean. Accordingly, I resolved to wait here till the next day, and I thought that if, Ulūuluk went on ahead with Mr. Stefansson, the former would be able to get ready all the dried fish and blubber which he had promised to supply to me for my journey to Shingle Point. The pair of them therefore started off about 4.30 in the afternoon, and I heard afterwards that the storm got so bad as to make them lose their way and prevent their finding Tuktuïaktok before midnight. When I heard this I was much pleased that I had not gone with them; but I got a taste of the same weather myself next day, for the snow which drifted before the stormy wind made it impossible for me to see 10 yards

ahead of me. As Kaleruk wanted to go to the coast for some whale-blubber, and declared his readiness to accompany us so soon as the storm should have subsided, I resolved to wait another day before setting out with him, and a very pleasant day we passed, despite the weather, feasting upon the fresh fish which Kaleruk supplied, and upon the tea, which was my contribution to the picnic. companion had only a small house, built of willows, and packed in the crevices with moss; it was then covered right over with a wall of snow, 2 feet thick. He had a wife and child—the former being a Kogmolik woman—and he impressed me as being a very hard-working man. During the winter he had killed three deer and trapped many white foxes; of these, so I heard, he trapped eighty more when he had moved his camp to Philip Island after going to the coast with us. As the next day brought clear weather, I started off with him for the coast; thus was I enabled to keep up my prismatic survey. We were soon across the height of land, and our road, which lay over many hills and small lakes, was thenceforth a gradual slope to Tuktuïaktok. Some of these hills were very curious, and Sir John Richardson speaks of them as being of gravel formation. We passed quite close to one of them about noon; it rose almost straight from the ground. lay directly south of Tuktuïaktok, and was, of course, covered with snow. I was curious to visit it, as the natives told me that there was a pond in the top of it. With some difficulty I managed to climb to this point, and beneath the hard-packed snow which covered the opening of the cap I found

ice: the natives, indeed, look upon these hills as sure places wherein to find fresh water during the summer. All about this coastline, between the delta of the Mackenzie and Cape Brown, there are great numbers of such hills, and from their appearance I should certainly have taken them to be of volcanic origin; but it appears from Sir John Richardson's account,* who examined one of them in the summer-time, that their formation is of gravel and of mud. They rise in some instances to a height of 200 feet, and, should the conjecture as to their formation be correct, the abrupt angle they form with the plain is particularly interesting.

It was about two o'clock when we reached Tuktuïaktok, and it was here that I met Avoyuuk for the first time, in his driftwood house—a meeting which I have already mentioned at length. He was intending at the time to go to Herschel Island to try and get some flour, for he had thirty people living in his house, some of them infirm old folk, whom this energetic chieftain was supporting by his labours. He was a fine specimen of a Kogmolik. Independence, as I have insisted, is characteristic of this tribe; but there was something especially striking about their chief. In him was embodied a type which nowadays, let us hope, has not wholly perished, but has merely been obscured. Hitherto, at any rate, it seems to have persisted in numerous and widespread varieties, from the times of the patriarchs. We find it in Alcinous, the courtly host of Odysseus; and we find it again in the pensive

^{* &}quot;Arctic Searching Expedition," by Sir John Richardson, vol. i., p. 251.

and amiable Thomas Holbrook, who entertained two of the Cranford spinsters to a dinner of roast ducks. The concomitant peas, it will be remembered, had to be eaten, much to the distress of his fair guests, either with what Thackeray has called "the horrid steel," or else with a two-pronged fork the latter an apt symbol of the dilemma. Avoyuuk would have suggested the use of fingers as the readiest way of escaping from this "Morton's fork." The yeoman class is sometimes thought to be wellnigh extinct; certainly we could do with more men like Holbrook or like Wardell. Between that bluff and jovial Pickwickian farmer and the Homeric Alcinous, we have a sort of evolutionary "link" in Acestes. Living before the days of "anchovy sandwichestrousers—devilled kidneys—splendid fellows!" Acestes could not support the cricket team at Dingley Dell; but he organized Sicilian games, and patronized the local heavy-weight champion, Entellus. Wardell was an expert at bringing down young rooks; Acestes drew a famous long bow in the Virgilian pigeon-shoot. In our own land the yeomen were a survival of the thanes, and the feudalism of Wardell was inherited from autocrats like Cedric the Saxon. That fiery franklin appears, according to Mr. Andrew Lang, in a second Waverley novel—this time under a more genial presentment as Magnus Troil. The latter was, to be sure, a boisterous tippler, whereas Avoyuuk, as I have strongly hinted, was a teetotaller; but virtue is often, unfortunately, lost sight of in necessity. I have little doubt that Avoyuuk would have retained his sobriety even in the Orkney Islands; yet I am still

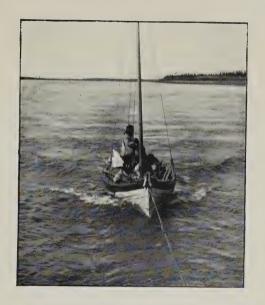
more strongly convinced that not even Magnus Troil could have brewed punch at Tuktuïaktok. But, if Avoyuuk lacked the ingredients for mixing grog, he was so far fortunate, at any rate, as to secure a fair number of fresh fish daily, which they caught with hooks under the ice. I spent a very pleasant two days with my cheery host, and then went on to Imnāluk with Mr. Stefansson and Kokatū. Here it was that Ulūuluk lived, and the place lies but a short day's journey from Tuktuïaktok. After passing Toker Point, we found the dead whale which had been drifted ashore in the autumn: but one could scarcely have guessed that it lay there, for the carcass itself was completely buried in snowdrift, and the place was marked only by a large piece of driftwood which the snow permitted to appear. At Imnāluk we came upon a small settlement of Kogmolik. There were ten families here, which were distributed amongst three houses, and which all had a good supply of fish. This they had caught entirely during the fall of the year, before the freezeup. I stayed with Ulūuluk, who was living in a small house of driftwood, and this stay it was my intention to protract, for I wanted to go farther along the coast and round the bay which is formed by Philip Island and Point Warren (Nūvuk); but I was led to alter this plan for reasons that will immediately appear. Mr. Stefansson returned on the following day to Tuktuïaktok with a native who was bound in that direction.

It now turned out that the expectations which had induced me to come to the coast with Ulūuluk were unfounded. I had been hoping to obtain from

him plenty of dried fish (pipsi), but the only thing he had was whale-blubber and rotten fish-so rotten that I could scarcely bear its neighbourhood, let alone its taste. I must, however, acknowledge that I made a mistake in having this putrid stuff cooked. The Eskimo always eat it raw, and the stench is doubtless quelled, as well as the strong taste, when the fish is frozen. Luckily one of the natives in another house had a few dried fish—a native whose name was Ivitūna. These fish I got from him in exchange for some tea, and I also quartered myself upon him as a lodger, for I found his house much more cleanly than Ulūuluk's. What I bought was not sufficient to prevent me from now spending two most hungry and wretched days; all that I had to eat being about one dried fish a day, together with a little whale-blubber and a cup of tea; nor was there any chance of getting away, since we were storm-bound for full three days. The wind blew furiously, and whirled the snow before it, and you might as well have tried to see through a thick mist. Travelling was thus rendered wholly impossible. Kokatū, meantime, and the other natives seemed to find the imprisonment as gay as I found it depressing. The enviable constitution of their stomachs enabled them to find both nutriment and relish in the noisome fish from which I could only recoil with loathing. Eskimo, indeed, prefer it rotten, and doubtless they are in the right. It is difficult to see why a decaying white-fish should not to the full be as dainty as a "high" grouse. Ulūuluk, when I asked him what had become of the dried fish of which he had boasted before we set out, made

the following reply: "I have no dried fish here now, as my people have eaten it all up during my absence; but I have a quantity of it about two days' journey from here to the west—at Kittigaruit—and I have sent a man with a sledge and dogs to fetch some for you to take back." This sounded satisfactory and plausible, so I waited here for that man to return—waited until I could hold out no longer, for I got nothing to eat. I then went to Ulūuluk and told him that I could not swallow his rotten fish; that I must, therefore, return to Tuktuïaktok; and that I would take with me a load of whale-blubber. I added that when his dogs arrived he could come to Tuktuïaktok with eighty dried fish, in payment of which he would receive a four-point blanket, a 25-pound bag of shot, and ten sacks of flour. blanket and shot I would bring him in the spring; the flour was to be left for him at Herschel Island when the ships came in. To all this he agreed the night before I left; and next morning I harnessed my dogs and made ready to set off on my journey with the load of whale-blubber-not so appetizing nor even so nourishing as the dried fish would have been; yet needs must where the devil drives. my disappointment was not yet at an end. Imagine how my sorely-tried patience at length gave out at sight of the expected load of whale-blubber-a single parsimonious piece, just big enough to feed the dogs for a couple of days! For this wretched lump Ulūuluk seemed to think I had been content to make the journey to the coast. I began to undeceive him by treating the beggarly bit of blubber much as Becky Sharp treated the "Dixonary"—I flung it

indignantly off the sledge. I then handed Kokatū a saw which I had by me, and told Ulūuluk exactly what I would do for myself if he would not do it for me. "You have brought me all this way here on a fool's errand," I said. "I came to fetch a load of dried fish (which you cannot put your hands on) and of whale-blubber (which I will lay my own hands on unless you give me a proper load)." If the fish had been eaten up, they were beyond recall; but there was no reason for Ulūuluk to be so close-fisted with his miserable blubber, since he had enough of it and to spare. If he would not give me more, Kokatū should saw some off the whale for me. This, I afterwards learned, was an empty threat, the blubber having already been cut away; but my words somehow had the effect of bringing Ulūuluk to reason, and I returned with a load to Tuktuïaktok, there to await the dried fish which I particularly wanted to get for my spring journey. Avoyuuk again received me with open arms, feeding my dogs, and giving me some fresh fish on both the days that I spent with him. native messenger then came from Ulūuluk: the last-named, it appeared, was unable to let me have any dried fish. I doubt, indeed, if "the dashing Mr. Smangle "himself could have wheedled a mouthful out of this elusive purveyor. Talk to me of your slippery Asiatics—of Tissaphernes and the heathen Chinee! I would have defied them to outwit Ulūuluk. No other native of the North American continent—unless it be Paupukeewis—could ever have led a man on such a wild-goose chase as had been this fatuous expedition to the coast. I sup-



TOWING A BOAT UP THE PEEL.



 ${\it By H. W. fones.}$ THE "WRIGLEY" TAKING WOOD ON BOARD.



pose, however, that Ulūuluk must have taken fright at the thought of having to wait till the spring for his blanket and shot, and till August for his flour. It is quite true that he had only recently become acquainted with me, and that he may, therefore, have been unwilling to do business with me except on the understanding of cash down before delivery. This objection would not have been unreasonable had he declared it at the time; though the most proper season for stating it would have been before we set out on the journey. Perhaps, however, fresh fish were really hard to obtain. My repugnance to the putrid variety he could not, I grant, have foreseen, since what is poisson for one man is poison for another; but having discovered my inability to gulp down this carrion, was it reasonable of him to try and fob me off with a miserly piece of whaleblubber?

His message, therefore, annoyed me greatly, for I had lost my labour and my patience; but there was no help for it. Even with the full load of blubber which had been finally wrung from the reluctant Ulūuluk, I did not see my way to going with Mr. Stefansson to Shingle Point. The staying-power of this substance is less than that of fish; neither does the blubber itself, as a stored eatable, last so long; nor does it, when eaten, "stand to you" (as some of our own provincial countrymen say), so steadfastly. I decided, therefore, to let Avoyuuk take Mr. Stefansson to Herschel Island, as that chieftain courteously offered to do; and I went on with Kokatū to Kangianik, meaning to return to my winter camp. During the whole of this time—from

the day I set out, I was unable to take a single observation-so tremendous, indeed, had been the wind, and so thick and blinding had been the drifting snow, that it had scarcely been possible to set foot outside the house. On the first fine day I went to Kangianik, and I there met a native, Tyukpūna by name, whose generosity was as signal as his means—fish, both fresh and rotten—were ample. The day after my arrival Avoyuuk, with his wife and child, came hither with Mr. Stefansson, on their way to Herschel Island; and this was the last I saw of my recent guest. I heard from him, however, when he reached Shingle Point, and I gathered that his trip across the Mackenzie delta had been a very cold one, as the account of my own return journey will give detailed reason for readily believing. Let me pay a slight tribute to this gentleman from whom I now parted. He had, while the sun was below the horizon, travelled from Shingle Point to my camp—a distance of 200 miles. After staying with me for three weeks he had then returned to Herschel Island, whence he had soon afterwards resumed his journey to Camden Bay; and here he had found the Duchess of Bedford wintering. From my camp to this bay the distance was 400 miles, and this distance was accomplished in mid-winter. His hardships must have been great, but his powers of endurance and of determination seemed to me to be considerable; and I cannot speak too highly of the persistence with which he set himself to learn the Eskimo language, of which he obtained proportionate mastery.

When Mr. Stefansson and Avoyuuk had departed,

I took leave of Tyukpūna; and just before leaving him I bartered a fish-kettle—at no time a downright necessity—for some of that fish without which it had so often been a downright superfluity. In exchange for this kettle I bought some fish, which filled up Tyukpūna enjoys the reputation of being the oldest native on the coast. His father before him similarly enjoyed celebrity—not, however, for having prolonged his own years, but for having considerably abridged those of many of his fellows. Tyukpūna's father held a record for having killed more men than anyone of his own tribe. There is a story told of him which harmonizes with this record. He was sleeping on one occasion-or, rather, he was extremely wide awake—in camp with six men, whom he suspected of designs on his life. Appreciating the sentiment of a line which he, nevertheless, could not have read, he resolved to hoist the wily engineers with their own petard, and plunged a nocturnal knife into the whole halfdozen. I noticed that Tyukpūna had likewise many marks upon his body, and it at first occurred to me as being remotely possible that my friendly entertainer, open-handed as he now showed himself, could tighten his fingers with something of the paternal skill upon a knife—that he was, in fact, a chip of the old block—and had probably received these gashes in broils with his fellow-tribesmen, whom doubtless he had amply paid back in kind. This conjecture, however, probably went wide of the mark. Had Tyukpūna won distinction in such affrays, his renown would not have been suffered to perish; and his record, as I have said, was merely

one of peaceful longevity. In a word, these incisions had, in all probability, been self-inflicted — the Eskimo, as I have observed in a previous chapter, being given to bleeding themselves for surgical purposes. An extinct volcano continues to bear traces of the raging heat which has consumed it; but there was nothing in this amiable old man which could lead one to think that the bloodthirsty spirit of the father had ever boiled over in the son.

On February 5th I left Tyukpūna's house for my own camp, and I thought it would be well to try another and a more direct route back again, since I wanted to see as much of the country as possible. Very cold weather had now set in, and on this particular morning my thermometer registered 41° below zero. Luckily, though it was by no means calm, the wind was not high, and we had it, moreover, at our backs, so that we felt it the less. We had six dogs harnessed to our sledge, and we needed them all, for our load weighed 1,000 pounds. The trail, moreover, was mainly uphill, and the country was thickly dotted with small elevations, which were interspersed with small lakes. On the latter, to be sure, and down the hill-sides which sloped onto them, the travelling was sufficiently easy; often, indeed, we had to take the dogs out of the sledge and let it shoot down the incline of its own impetus on to the lake; but then there was a corresponding ascent on the other side, and it was a most toilsome task to pull the sledge on to this upland. We made an early start, and travelled all day, without stopping to eat a snack or even so much as to make tea. About four o'clock we came in sight of a conspicuous hill which I had

seen away to the west of our outward track. I told Kokatū that I had seen this hill before, and I showed him a drawing of it which I had made in my notebook; but he would not believe that we had ever before passed anywhere near this hill. Supposing my conjecture to be right, we ought to come on to a sheet of water very much larger than the lakes I have just spoken of. We journeyed on, and camped quite close under the hill; but on our way to it we came to a place where there was a quantity of open water under the snow. Kokatū was then walking in front of the dogs; I was driving them, and was at the same time surveying our route. I saw Kokatū trying the ground with his staff which he always carried, and I guessed that we had come upon open water. I was going, therefore, to stop the dogs, but before I could do so they sank, sledge and all, into the water. Needless to say the sledge got stuck, so I had to go in without snowshoes on to help to pull it out. The thermometer at this time showed 51° below zero, and I had not got a change of deerskin boots. Soon after this we made camp by building a snowhouse. I did not say anything to Kokatū about my getting wet, for I knew that he could not do anything, but I also knew that I had got my feet frozen badly. There was no wood to make a fire with, for we had not travelled far enough from the coast to reach the timber-line. I helped Kokatū to build the snow-house; then, getting my deerskin sleeping-bag, I took off my boots and socks, and ate one raw fish for supper. The boots and socks I put inside my shirt and against my chest to dry them if possible before morning. A miserable night I had of it: my

feet began to burn and to ache so that I could not sleep. I was very glad when morning came, and I awakened Kokatū at an early hour. We had a raw fish each, and then started upon our journey, and I was glad to find that my boots and socks had dried during the night, so that I was spared the discomfort of having to put them on wet. This day proved colder than even yesterday had been, for the thermometer now registered 57° below zero. It was about six o'clock, and the waning moon was as bright as I have ever seen it. After passing this conspicuous hill we came to a large lake, the third of the Eskimo Lakes. My surmise, therefore, turned out to be correct, and this was the same lake that we had crossed going to the coast farther to the east. We travelled along the north shore of this lake for three hours before we got to the end of it, then up a narrow lake, which was like a river, for two more hours. Here I saw a splendid sight. The sun was rising not far from the meridian, rising red and fiery as it does on these very cold days; on the other side of the meridian the pale cold moon was seen descending. About noon that day we came to a few small trees, at which we halted to make a cup of hot tea-a most luxurious cup, for we had warmed neither bite nor sup since leaving Tyukpūna's house on the coast. In the afternoon we travelled along this river for several hours in the most intense cold, the thermometer still standing at 57° below zero, and about four o'clock we camped in an old shelter which, as I afterwards found out, had been made by Enuktū in October. Okiliak likewise, as I gathered from his own words, had camped in this same place two years

previously; but this had been in the summer-time, and so malignant did he then find the mosquitoes that they actually stung two of his dogs to death. The winter, however, brought him its compensations, for he here trapped fifteen black foxes. We were now back in the timber, and were therefore able to build a good fire, over which we cooked some fish and made our tea. I was glad to get into my sleepingbag, and to take off my boots and socks again, for my feet had been most painful all day. It was Kokatū who now became a sufferer. In the middle of the night he woke me up, saying he had great pain in his stomach. I got up to see what I could do for him, but unfortunately I had nothing by me which could give him relief, and I really believe he had cramp in the stomach caused by the intense cold. However, I lit a good fire, and kept it going till about 5 a.m., when I assured him that he would be better if he started on. I could see that he was in great pain, and I was much afraid that something serious might happen to him. He would not take any breakfast, so we soon got on the road, and as I knew we were quite close to Kunuk's old camp I went up onto a neighbouring hill to see if I could recognize the surrounding country. From this elevation I could descry the lake by which Kunuk's camp had stood, so we started off for the spot, and when we arrived there we picked up a few things which we had left on the first night of our journey to the coast. Here Kokatū was better, and we made a cup of tea, after which we immediately set out to my camp. Our load was heavy, and our dogs were utterly exhausted before we got to the top of the hill which

rises half-way between the two camps. On the hilltop, therefore, we had to leave half our load, for we had been travelling since five o'clock that morning, and still had three hours' journey in front of us. I was glad to lighten the burden of the sledge, being particularly anxious to push on since the cold was so intense; my feet, too, were very painful as we neared the camp. The dogs began to realize where they were, and got over the ground so fast that we could not keep up with them except at a run. We reached camp that night, and were both of us well pleased to be back. For three weeks we had been travelling without any comforts, and our respective ailments at the close of this return journey had, even more than the storms and the scarcity of food, made us thankful that the return was accomplished.

CHAPTER XIV

HARD TIMES

February 7 to March 25, 1907

Disappearance of the fish—A sick wife—Snaring ptarmigan—A dismal outlook—Kindly natives—An observation—The Arctic night—Kūnuk's departure—Fresh arrivals—Relading whale-boats—Storms—A windfall—A fast journey—Kokatū's return—Completion of my work—Starved out.

It was good to find ourselves back in our old quarters by Eskimo Lake after the toilsome journey we had just undertaken with such disappointing results. Having gone for wool, we had, in a manner, come back shorn. I had brought back whale-blubber, to be sure, and I had also brought back frozen feet—a source not merely of discomfort, but of serious inconvenience, since they impeded me in the work I wanted to do. But of this more anon. Meanwhile it was borne in upon me that a man in this country travels away from one trouble only to encounter another at his journey's end, and on the morning after the night of our arrival Kokatū came in with a long face and a dreary report. The fish, he said, had all gone out of the lake, and his wife and children, together with Okiliak and the latter's family, had all been living on flour during our absence. This

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seemed almost incredible to me, but I could see no reason for doubting the truth of the intelligence. Kokatū further told me that the party had visited many other lakes, in none of which had they been able to catch a single fish. Solvitur ambulando: my first impulse would naturally have been to start up and go down to the lake, and see for myself if things were really as bad as he represented them; but this method of proof was out of the question, as my understanding had fairly given way. I could scarcely put my feet to the ground, let alone move about on them, so I had to take Kokatū's word for it until I was better. Soon after we had set out for the coast, Kunuk, who had gone and camped on the other side of Eskimo Lake, had been fortunate enough to kill two deer. This coup had been made in the nick of time, and had been a considerable help; but Kūnuk himself, likewise, was now starving on the other side of the lake. To make things worse, his wife was in consumption—the only case of this malady I saw amongst the Eskimo—and he came over to me with a sad story of the hardships and anxiety from which he was suffering, for the woman was very ill. I told Kunuk that I would give him some medicine for her, and would divide up with him and his family such provisions as I had. I could not but feel genuinely sorry for this man and have the greatest admiration for him: he never left his wife for any time, but waited on her hand and foot; indeed, she was utterly unable to do anything for herself, and any effort to do so would always bring on a fearful fit of coughing, followed by a slight hæmorrhage. You had but to look at her to say

that her end could not be far off. No greater calamity can happen to an Eskimo than to have a sick wife. It may seem curious to the reader, in view of what I have hitherto said both as to the independence and the resourcefulness of these natives, that they should be so completely beholden to their women-kind for many of the household offices, and it may likewise appear that the lot of an English labourer would in these circumstances be more difficult than that of an Eskimo. The truth is, however, that as the family, not the individual, is the social monad, so the very integrity of this family life causes any sickness that befalls any other members to be more seriously felt by the whole household. The distribution of labour between the sexes here obtains in fullest force, and the men and women strictly confine themselves each to their own province. If an English workman's wife is made helpless by sickness, some friendly neighbour's wife will perhaps give an occasional hand in cooking a meal or looking after the children; many of the necessaries of life, moreover, come even to the poorest from without their own homes. But in the Arctic region there are no cheap stores and no village life. Two comparatively small tribes are scattered over an immense district, and an Eskimo looks to his wife not only for a fulfilment of ordinary domestic tasks as we understand them, but likewise for the making of every stitch that he wears.

To resume the narrative. Two bottles of whisky still remained to me out of three which I had brought from Herschel Island; I had also a little peppermint and some sugar. Into an empty bottle I poured

out a wineglassful of whisky, together with 5 teaspoonfuls of sugar and 5 drops of peppermint. These ingredients I mixed well together, and then, filling the bottle up with water, I gave it to Kunuk, with instructions to give his wife a little of the mixture every time she had a cup of tea-the medicine being put in the hot tea itself. Curiously enough, my prescription—the only one which I could give her—really did the woman a lot of good, for so long as she took the draught her coughing abated, and she slept well at night, which she had not done before. Kūnuk now brought both his wife and children to my camp, so that I had three Eskimo families beside myself to keep. We did not get more than two fish a week, though the women fished diligently every day; but there were a few ptarmigan on the hills, and the men and women often got as many as ten in a day, most of which they snared with twine. twine was set in the track of the ptarmigan, just as we set a rabbit-snare, and the foolish birds put their heads into the noose without ado. More acceptable even than the ptarmigan were a few musk-rats which Kokatū and Okiliak obtained by setting small steel traps under the snow on the shallow lakes where these rats had their houses. Every rat was fat as butter, and was very tender and toothsome. This was well enough; but we were living on very short commons, and with the usual dismal outlook of soon having no commons whatever. Nevertheless, it was impossible to repine at our monotonously adverse fortune when one had such cheery, though famished, mess-mates, who made just as merry as if they had been holding high revel.

So much depends on the point of view. Dick Swiveller's Marchioness could put orange-peel into a glass of water, and "make believe it was wine": and I think the Eskimo must have had the same enviable faculty of self-illusionment. Thus, though I had made up the best physic I could think of for Kūnuk's wife, I feel sure that the efficacy of the medicine was mainly of the patient's own contribution. The liveliness of her imagination probably did even more for the peppermint than the vivid fancy of the Marchioness was able to do for the orange-peel; and, difficult though it be to persuade yourself that you have dined when the "aching void" in your interior bears witness to the contrary, these people had the happy knack of indulging that cheery flow of spirits which in many of us it requires a good dinner to produce, or at least to maintain. Several times during this pinching period these Eskimo would cook three ptarmigan when they only had ten on which to feed the whole company of eight; and having cooked the birds, they would bring them in to me for supper, after I had been working all day with nothing but a cup of tea in the early morning. Meantime, as I sat down to my repast, I could hear their uproarious laughter outside; and, in order that they really might have some cause for merriment, I would send them back a brace of the birds untouched; but I was deeply moved at being treated by these savage folk with such consideration. The whale-blubber which I had brought back from the coast was a great help to our dogs-in fact, it was the only food they got. For some days after my return

I continued to be unable to walk. Now I had already obtained three occultations, and my main object in returning when I did was to obtain a fourth, which I thought might add much to the accuracy of the others. To do this I had to go out to my telescope on my hands and knees; but I obtained the observation, and afterwards sat up all night taking three more for the error of my chronometer by equal altitudes. I could only use this observation, as I had nothing with which to read my vernier except a coal-oil lantern. The night was very cold, but it was beautifully clear, as it always is in this climate when the cold is most intense. The thermometer stood at 62° below zero when I took the occultation, and towards morning it dropped to 65° below zero. It is on such a night that one realizes how indispensable these instruments are; for the cold, measured by one's own bodily perceptions, appears when there is no wind to be far less intense than it really is. The night was not easily to be forgotten—it was the night of February 17. The moon was only five days old, and formed a tiny crescent in the heavens, while the star ξ^2 Ceti, though only of 4.3 magnitude, looked as big and bright as Sirius. All the stars, indeed, stood out clear-cut like brilliant gems; and, strangely enough, the Northern Lights, which are almost always present in an Arctic sky on such cold nights, were now wholly absent—the only instance of this phenomenon (for phenomenon it deserves to be called) which I can remember to have witnessed. Not a breath of wind stirred the air, which was most unspeakably still and solemn. Something of



A BOAT'S CREW ON THE ATHABASCA RIVER.



this solemnity stole over my thoughts, and I was awed by the universal silence in which everything was enwrapped. Hard by, the natives and the dogs lay locked fast in slumber. No faintest murmur in their sleep, no slightest change of posture could have betrayed their presence; and I felt a whimsical pity for them, since they were thus insensible to the very spell which their own marble repose contributed to produce. More often, maybe, than not, this spell is due to some circumstance intimately connected with the silence rather than to the silence in its own right. We imagine something rich, for example, in the silence into which the last dying wail of the violin is insensibly merged. The violinist, indeed, we are told, literally plays upon this imagination of his audience; for the final strain which they seem to hear he does but seem to evoke. A recent writer, again, has made passing allusion to the blissful "hush which succeeds to the song of the nightingale "-no disparagement, surely, being intended of that delightful songster; rather, the writer may be supposed to mean that the intervals of silence still seem to be thrilled with the warblings which have momentarily ceased, or with those into which the bird may at any instant break anew and which expectation forestalls.

But the song of the nightingale is not heard in Arctic regions; nor, since the Christmas which I spent at Fort McPherson, had I again listened to the plaintive scrapings of the fiddler. It is not in contrast with, nor as a fancied prolongation of, discontinued sounds that the stillness of a starry night affects us: it is by their perpetual remoteness from

all that strikes upon the ear that the mighty splendours of the sky are made impressive. No sound from our planet at any time invades those distant spaces; and the silence fills us with a sense of something unchanged and eternal. In describing that first cousin to utter quiet—the drowsy afternoon hum of the Lotus-land-Tennyson brings before us "three silent pinnacles of aged snow." It is the aged silence that is borne in upon the night-watcher. Another impression which he receives is that of serene majesty — a feeling which is variously awakened beneath the soft yet stately hills of Killarney, beneath the lordly pile of Cologne Cathedral, or in the presence of some exceptionally strong and fearless character, whose tranquillity seems based on the consciousness of power. If this sense of tranquillity can be experienced in other lands, so, too, can the sense of eternity. I do not wish to pretend that our own starry nights do not awaken the same kind of feeling: I merely recall this particular night as being adapted, in a very unusual degree, to arouse such a train of musings as I have indulged. Let me close them with some strikingly apposite and beautiful verses from one of the Psalms:

"The heavens are telling the glory of God:
And the firmament declares the work of His hands.
Day to day utters speech:
And night to night discovers knowledge.
It is not a declaration, neither are they words:
Whose voice cannot be heard."

In no other mood of Nature is the tranquillity and eternity of God's majestic power more forcibly

symbolized; yet even of these heavenly bodies was it written:

"They shall perish, but Thou remainest:

And all of them shall grow old like a garment.

And as a vesture Thou shalt change them, and they shall be changed:

But Thou art always the self-same, and Thy years shall not fail."

I had done no triangulation here, but I was anxious to extend the triangulation from my last camp to the north end of Eskimo Lake; subsequently, moreover, I hoped to carry on the line to Liverpool Bay. This survey work I meant to do as soon as the days began to lengthen-supposing, of course, that we should not have been starved out before then. Having now finished with my telescope, I decided to send it back to the whale-boats, together with everything else that was not absolutely necessary for my spring journey. My frozen foot now began to get better, and I was able to use it again. It was now that Kūnuk came to me one day, telling me that he intended to go on and look for deer. The truth was that game was too scarce for him to care about remaining here. He was a most manly, unselfish fellow, and it distressed him to think that he himself, his sick wife, and their three children should make any further inroad on my provisions. Accordingly, he would try and kill sufficient deer to support us all. I admired him more than ever after this declaration, but I told him to remain with us until March, when we could all go on together. this proposal he turned a deaf ear. I was keeping not only Kokatū, this man repeated, but also

Kokatū's wife and mother, and that was burden enough. After all the provisions had been eaten up, added Kūnuk, we should, perhaps, be unable to find game, and I should then die myself (muki). Nothing that I could say would induce him to remain, so the day before he started Kokatū's wife and Okiliak's wife spent the day in smashing up bones which they had saved. It is worth noting that these people should have found out how nutritious a substance gelatine is. Before undertaking a journey they always smash up all the bones they have saved while in camp. To pound these bones, they take a stone and lash it on to a wooden shaft. Two or more women seat themselves by the side of a large boulder, on which they place the bone with one hand, while they wield the hammer with the other; and the pounded fragments are then boiled into a stiff jelly, which is afterwards allowed to freeze. What chance led them to this discovery? Or was it indeed a chance, and not rather an instinct? Though a little of the gelatine will go a long way, it is surprising what a number of bones are needed to make that little; and when, on the morning of Kūnuk's departure, I saw him setting out with nothing but gelatine, I could not refrain from giving him some rice, oatmeal, and flour. Of these I had but little left, yet I could not let him go off so scantily victualled; and I also made his wife up three bottles of the salubrious peppermint elixir. About two days after he had gone, two Nūnātāmā came over from the Mackenzie River. Needless to say, they were starving, and had issued forth in quest of deer: of these it will likewise

readily be guessed they found none. I gathered from this hungry couple that there were several families in the same pinching straits as themselves. This is truly a dreadful time of year in the Arctic region, unless you have plenty of food. When a man is reduced perforce to the dismal necessity of cheeseparing, it is well if he can spare even the widow's (cheese-)mite; nevertheless, I put my modest contribution into the plate—half a bag of oatmeal—and I then sent Kokatū back with them to the whaleboats. There I had some flour, which I had left against our arrival in the spring; and I told Kokatū to give the two Nūnātāmā a sack of this flour. I likewise directed him to bring back the rest of the provisions to keep us on our journey to Liverpool Bay, and to take back everything except what we needed for this trip. Kokatū therefore started off with his two companions, who took some of his load on their own sledges; and I went with the party as far as the middle of Eskimo Lake, for I wanted to get an observation and to start my triangulation. I was glad to see my telescope and several other things that I did not want to lose being taken back. We camped that night beneath the hill upon which I wanted to get the observation; and the travellers made an early start next morning. I also rose betimes, and at once set off with my instruments to the top of the hill. No sooner had I reached the spot than it came on to blow such a gale as to make it impossible for me to see a yard ahead, so I had to retreat down the sheltered side of the hill, and remain there until the next day. A wretched night I had of it, without any covering except the snow:

but, wallowing in this, I made myself a kind of shelter. Here I lay curled up like a fox until the storm was over; I then climbed the hill again, but all to no purpose, for I could not get an observation; so I walked back to camp. On my arrival, I saw a stranger, with a sledge and dogs, who had evidently just arrived. It was Kūnuk. He had killed two deer, with one of which he had straightway come back twenty-five miles to our camp. What a good fellow he was, and how kindly I took it of him! I had been looking forward to getting a cup of tea, with perhaps a ptarmigan; but expectation for once fell below the reality, and I settled gratefully down to the tongue and tender-loin of a deer. These little tit-bits are really very good when they come in this country. Kūnuk was starting off again to rejoin his family in camp, so I thought I would go with him. I was rather tired after the bad night I had spent in a snowdrift; but as I wanted to see the country round his camp, I was determined to go. He had six splendid dogs—the best by far I have ever seen amongst the Eskimo-and he told me to jump on to the sledge; but I said that I would rather run, so away we went. I ran as hard as I could, but I was quickly left far behind; so Kūnuk, who was on the sledge, soon pulled up the dogs and waited for me. I got on to the sledge, nor did I get off again until we got to his camp. The trail was on a lake for the whole way, and the travelling was very easy, though somewhat long. I made out the distance to be 25 miles, but we did it in five hours. I stayed with Kūnuk for a couple of days, and then walked back to camp, getting several points for my

map on the way. Kokatū had returned before me with some chocolate and coal-oil, both of which Mr. Stefansson had sent me from Shingle Point. Kokatū had also brought from the whale-boats two sacks of flour and some dried potatoes. The only drawback to this was that we now had nothing left in reserve at the whale-boats; so, if we should not procure any fish or wild-fowl when we returned to the Long Lake in the spring, we should have another bout of famine. Yet a bird in the hand was worth two in the bush, and we had to live in the present if we were going to have any future to take thought of. Eleven human and ten canine stomachs had somehow to be satisfied every day. I must not forget to add that Kokatū brought news as well as provisions; and it was the receipt of the one which clinched my determination to eat up the other. The news was that everyone was starving on the Mackenzie River. Now, my position was briefly this: I was bent on surveying the country between our present camp and Liverpool Bay before returning to the Mackenzie. It is true that I expected to obtain fish and whale-blubber on the coast; but the distance thither was roughly 200 miles via Liverpool Bay, whereas it was only a day's journey from where we now were straight to the Mackenzie. Had food, therefore, been plentiful on that river, my natives, who cared nothing for surveying, would have wished to make a bee-line for those hospitable banks; but, as the case now stood, it was to their interest to go to the coast in quest of food before ascending to the Mackenzie. There was thus nothing to hinder me from eating up my provender

and doing my work here before starting to the coast. "Sufficient unto the day is the evil thereof." We had food enough to last us for the present, and on our way to the coast we should pass Kūnuk's camp. Deer, it is true, were scarce; nevertheless, like misfortunes, they do not come singly. When he had first gone in pursuit of them I would not have given a fig, if I had had one, for his chances of finding any; but it seemed improbable that, having killed two, he should not have killed more in the same neighbourhood. Hence I was not disposed to adopt the third alternative of hurrying immediately to the coast; and I told Kokatū and Okiliak that so soon as I had finished my work we would go on to Kūnuk's This announcement greatly pleased them. and they were anxious to start without delay; but I had several points to visit, and it took me three weeks before we eventually set out. This interval we spent in eating everything that was left-in fact, we had timed things a little too closely, and on several occasions we had to feed the dogs on flour and water to keep them alive. I must confess that my anxiety began to return-indeed, I was gravely apprehensive. Kūnuk had told me when I left him that in the event of his killing more deer he would drive round the butcher's cart—would bring a load on his sledge. But that cheery vehicle had as yet failed to arrive. This was a bad omen. In the meantime there seemed to be nothing in our present locality except a few ptarmigan; but these were so scarce that we seldom got more than two a day. had plenty of tea and plenty of tobacco, as well as guns, rifles, and ammunition; but we had little or

nothing in the larder. Mingled, nevertheless, with my apprehensions was a strange species of elation. Before throwing in my lot with the Eskimo for eighteen continuous months I was desirous of experiencing what might be called a test-case. I had heard much of the powers of endurance with which both Indians and Eskimo are credited, and I had already had some practical proofs of the marvellous resourcefulness and versatility of the latter people. I was curious, therefore, to see what the Eskimo would do if these powers were put to the proof; and, while as yet I was ignorant and curious as to how they would obtain a livelihood, I had little doubt that the livelihood would be obtained. Lastly, should a crisis arise, we could live on capital so long as we could "realize" our beasts of burden. Some of our dogs, it will be remembered, had attempted to stave off hunger with kayak; we should have less trouble in sustaining life on dog.

CHAPTER XV

A SPRING SURVEY

March 25 to May 20, 1907

A stormy night—A windfall—Triangulation—A courteous chieftain—A niggard hunting-ground—Leaving the lakes—Skirting the coast—Canine cannibals—Finding a dead whale—Deserted villages—A barren country-side—Open-water sky to seaward—A friend in need—Kittigaruit—Richard Island—Loss of an attendant—Ice-bivouacs—Returning to the whale-boats.

CHEERLESS and forbidding was the outlook on the morning of March 25. Three meagre ptarmigan alone remained after our breakfast, and on these we had to rely both for our own subsistence and for that of the dogs, until we could either find further game, or haply obtain a supply of fish. Nor was the weather less dismal than the food prospect. It was blowing and snowing hard—so hard as to make it impossible to see anything ahead—yet not as wildly as it blows and drifts along the coast, for we had the scanty but grateful shelter which was afforded by patches of stunted pine. These are dotted somewhat sparsely amid the gullies in those hills which themselves make an effective rampart. In clump and gully alike the snow lies soft, the softness being due to the brittle foliage of the jack-pines, against

which the driving particles are spent. When opposed, however, by a soft and absorbent substance as, for example, when it strikes upon the traveller's atiki (or shirt)—the snow straightway congeals with such solidity as to defy all efforts to dislodge it unless recourse be had to thawing it. Equally solid is the packing of the snow on the vast fields of unsheltered ice over which it scuds, not in flakes, but, as it were, in grains, like the finest sand or salt. Though the ice may be called a plain, this description of it is very misleading. The ice itself, for all its level appearance, is scored with innumerable ridges, so that every tiny bead of snow, as it strikes against the side of a rut, is driven home and jammed into increasing tightness by the impact of each fresh atom. reader who knows the exceeding density which can be imparted to a snowball will yet be surprised to learn that the slabs of snow cut for house-building out of the white pavement overlying the ice will, in falling, ring out quite sharply like clanging metal.

In England we are wont to associate the voice of the tempest with the moaning of tortured boughs which strain in the wrestling woodlands—"Luctantes ventos, tempestatesque sonoras"—or with the melancholy soughing of poplars or of bending willows in regions where timber is less thickly clustered. At sea, again, the wind is but one of many factors which combine to produce the hurly-burly. The tumult of the waves amongst themselves, their ponderous thunder against the sides of the struggling ship, the rattling and groaning of its tackle—all these causes must be reckoned as contributing to the uproar. But on the Arctic Ocean and on the barren

grounds of the adjacent coast there is nothing to break the wind, and nothing for the wind to break; the boisterous waters are held fast in adamantine bonds; and yet one is led to conjecture that the bluster is here more deafening than it could be in any other part of the world.

When the wind sleeps the natural state of these regions is one of immense and awful silence—a silence which, like Egyptian dark ess, seems no longer to be simply negative or vacuous, but actively to oppress and overwhelm the sense—perceptions which ordinary stillness would merely baffle. In such a silence we should even now have been lapped on this morning of March 25 but for the rushing of the untimely wind, which raised so formidable an obstacle to our outset.

A small patch we formed in this elemental vastness—small, yet not forlorn. Though the men of the party were in some hesitation as to whether we should start out in such a blizzard, they were sanguine in their hopes, so soon as ever the journey could be begun, of finding big game in abundance: an expectation which, as will speedily be shown, was fully justified. The women, shut out, as usual, from these deliberations, were tranquilly enjoying an after-breakfast pipe of tobacco; meantime the children, who, of course, would never lose the chance of pranking, were cutting fantastic capers on a neighbouring snow-bank. It did one good to see the youngsters tobogganing with shouts of rapture, on their father's snow-shoes, down this incline of some 30 feet in height. The dogs alone seemed unable to enter into any of the feelings discernible in



SNOW WALLS ROUND A CAMP AFTER A STORM.



ESKIMO WOMEN BRINGING IN A LOAD OF DEER.



our party. There was no speculation in their eye, and but little prog, it must be regretted, in their maw, as they lay curled up, hungry yet listless, sullenly resigned to the hardships of the present, and supremely indifferent to the issues of the future.

Owing to the weather, I was forced to give up all idea of carrying a line of triangulation to the next camp, and it was difficult even to keep up a survey

of our route with a prismatic compass.

We travelled down the slender river, which, after flowing one mile past our camp, widened out into a lake, the greatest breadth of which might be a mile. Hills, rounded and broken, rose on both sides of us to the height in places of 200 feet. Progress on the lake was easy, and the sledges—unlike the dogs—ran better for having little food on board. We travelled for twelve miles in a north-westerly direction to a point where we decided to make tea. Here there was a delay. One of the children's snow-shoes had slipped from the sledge, and Kokatū, by whom the shoe was first missed, went back in search of it. As he had not returned from his quest by the time tea was made, and as the weather continued to be very much unsettled, I resolved to camp. By doing so I should give myself time to take observations for latitude and longitude, and from the top of a hill hard by the natives might, I hoped, be able to descry deer.

There was a pretty spot two miles farther on where I decided to camp. Upon reaching it the natives pitched my tent, and then went out to hunt for game. They succeeded in bagging five ptarmigan, but saw no signs of deer. Our dogs were no better for the day's journey, and all we could give them was some

old deer-skin, which had been used as clothing, and which we soaked in warm water.

The wind dropped, but it was cloudy during the

night.

The next day opened with brilliant sunshine without wind. I got observations for time and for the variation of the compass at nine o'clock in the morning. Then, to my dismay, I found that my chronometer had gone wrong. What had happened to it I could not tell, but I fancy I must have given it a knock while lifting a sledge. I had been rating this chronometer very carefully for six months on purpose for this spring journey, and lo! the very first day out I lost my Greenwich time; but I got it again later.

It was still an hour and a half short of noon, so I went up on to the top of a hill to get, if possible, an azimuth of my winter camp. I had no sooner got there than a blizzard came on, which prevented any further work. I returned to camp, chafing and disgusted, for I could not well retrace the previous stage of our journey to get my Greenwich time, seeing that it might go on blowing and snowing for several days. Furthermore, the dogs were so thoroughly spent with toil and hunger as to make me dread exposing them to any risk that could possibly be avoided. Death by starvation inevitably awaited them should they again set foot in the desolate locality we had just quitted. The only alternative was to push forward. Things could not be worse than they already were, and there seemed every likelihood of finding game as we advanced, so we faced the storm and started. In front of either sledge walked one of

the two women of our party. Taking a line, she fastened each end of it to that of one of the traces at the leader's shoulders, and, stepping inside the loop thus formed, she breasted the cord and gave lusty aid in pulling. Kokatū, at the side, tugged at a strap fastened to the sledge itself, whilst I did the like for the other sledge, and got my face frostbitten in doing so. In this way we covered eight miles, and notwithstanding our utmost united efforts it took six hours to cover them. I had fully expected, on arriving at the camp, to find it in a starving condition; but luckily this was not the case, for Kokatū's brother, Kūnuk, who was here encamped, had killed some deer. This was welcome news indeed, and the first thing I did was to see the dogs fed. Heartily they enjoyed the meal, and nobly had they earned it. The poor beasts had not had a proper feed ever since leaving the coast on February 5-for about seven weeks, in other words; but from that date they had subsisted most of the time upon old clothes. This, indeed, was a more genuine and startling feat than that of Alfred Jingle, who declared that he and Job Trotter had "lived for three weeks upon a pair of boots and an umbrella with an ivory handle!" a declaration which elicited naive expressions of astonishment from Mr. Pickwick, "who had only heard of such things in shipwrecks, or read of them in Constable's 'Miscellany,'" Yet even the writers who chronicle their own travels know that there are things which their dogs, like their readers, will not readily swallow, and old clothes might naturally be reckoned of the number. Nevertheless, the teams not only supported life upon this pitiful provender,

but also throughout those seven weeks did continuous, if feeble, work. Kūnuk gave us good reports of deer, and we felt that we might perhaps be able to get ourselves and our dogs into good fettle for resuming the journey. A more charming spot he could not well have chosen. The coast on which he was encamped here formed a large bay, where, nestling under the north-east side, a pleasing group of pines marked the end of the low-lying belt of timber-line. In the background uprose quaintly-shaped hills, crowned with snow, and spiked with a few dried sticks—the mere ghosts of trees which had withered away before the gales that sweep this country. In the distant and bleaker hills we found abundance of deer.

It was pleasant to see Kūnuk again, and to bask in the cheeriness which beamed from his honest, smiling face. He gave us a most cordial welcome, and in less than half an hour he had the tender-loin of a deer cooked for me, whilst the natives made a meal off raw venison. After this grateful collation my camp was pitched, and a further repast of deers' tongues, together with dried and pounded meat and grease, was served up with coffee in my tent. Thus ended an eventful day, and I was very glad to get into my sleeping-bag.

Next morning I was up betimes, for I particularly wanted to get an observation from the neighbouring hilltop; but the day proved to be rather inclement, so I made my camp comfortable, and plotted the work I had done so far. I was more successful the following day, and got observations with the true azimuth of my old camp, which gave

me G.M.T. The natives went out hunting, and when they returned in the evening they declared that they had seen four deer in the far distance, and that they intended going out the next day to kill them.

The Eskimo often find deer far off with their telescopes, and never lose them when once located. I worked out observations while this hunt was going on, and in the evening they returned saying they had killed four deer.

Finding deer made me decide to remain there whilst my dogs had their fill of rest and of food, and we had got two good loads of deer-meat with which to continue our journey. During the time I did some triangulation, measuring a base and extending it to the points I had got from my winter camp. I also measured the thickness of the ice on the lake; it proved to be 3 feet 4 inches. The women tried fishing several times, but without success. Our men hunted and killed in all twenty deer. This took us to April 9, when I decided to proceed. These deer had been a great windfall to us, for our dogs were now in a condition to draw a load.

On April 8 the sledges were packed and loaded with deer-meat, and on April 9 we parted regretfully from Kūnuk, who had more than once come to our assistance. He was going to return to his whale-boat by the most direct route across country, "when the ptarmigan," so he expressed it, "had got dark in plumage"; and we looked forward to meeting him again in May.

Next day our direction lay north-east. Opposite to our camp there was a narrow channel running into

the third extensive lake, which is very large, and is full of bays and of islands. We crossed an island that was conspicuous for its height and shape, and camped on the west side of it. We continued our journey next day, out of this lake into another narrow channel, in which we found a family of Kogmolik fishing, the head of which was named Tiktik. This Eskimo had been here for two weeks, having been starved out on the coast, and was trying his luck, as many others were, farther inland. he had fair success, for he had a number of fish and two deer, and he gave us a good meal on our arrival. One of his family was very sick and unable to walk, but had to ride on a sledge. This man I doctored, and I heard afterwards that he got much better. Was it my treatment, or was it a "faith cure"?

The next day, April 11, was fine, so I took observations for latitude and longitude, and for variation of the compass, and continued the journey on the 12th.

We made a good start, and soon came out into the fourth Eskimo Lake, at the other end of which Avoyuuk, chief of the Kogmolik, was camped. We arrived there at six o'clock, and found that he was catching plenty of fish, but that he had killed no deer.

I rested here for two days to fill up our loads with fish, if possible, as I heard we should not meet with any other camp between this and Liverpool Bay. I got observations here for latitude and longitude, and variations of compass. Our fishing was not very successful, but the chief came to me and offered me as many fish as I could carry: an offer which I thankfully accepted. Having thus replenished our food-

supply, we continued the journey on April 15. The route lay down a narrow winding river out on to another lake, which has a curious island in the middle of it—an island being so large as almost to fill up the lake, and make the passage round it appear like a river. The hills here are not so high, but are more rough and broken. Night overtook us at a point on the north side of the island, where a quantity of driftwood was stranded, and where we camped. As we were now some way north of the timber-line, we should have been forced, had we not happened upon this fuel, to have recourse to the "Primus" cooking-stove, and oil was scarce and precious with us.

April 16 was a very bad day, snowy and foggy, so as this seemed a likely place for catching fish, we tried to turn our enforced delay to profit. We were, however, unsuccessful, and I decided to move forward on the morrow at all risks.

April 17 proved to be worse even than the day before, and we had to cross the fourth Eskimo Lake, upon which we started out at 9 a.m., and travelled all day against driving snow. This lake is slightly brackish; in fact, my native guide, Okiliak, told me that he himself had actually speared white whale in this particular lake. We got about three-quarters of the way along it, and camped on the north-west shore, where there was no wood whatever, so I had reluctantly to make use of the cherished "Primus" for the first time. Natives are not fastidious, and these stoves are not capacious, so we ate our fish and deer-meat raw, and set the "Primus" to the single job of making tea enough for the whole party.

The waterway here narrows, but quickly widens out again into a large lake some ten miles in breadth. On April 18 we crossed this lake, and camped under a high hill, from which I got a very good view of the surrounding country. The following day we set out at 10 a.m., and travelled till 7.30 p.m. on good ice and snow-fields. There was no wood, and we had to keep on sacrificing our oil. We discerned no signs of game. The natives tried fishing every night, but without result. Our supplies were fast giving out. The rapidity with which a traveller's foodstore dwindles in this region is due to a wolfish appetite, aggravated in the natives of his party by a sort of lurking, superstitious sentiment, which has already been described in a previous chapter.

On April 19 we started at 10.15 a.m. in a thick fog, and in the afternoon we found we had got off the main watercourse into a blind bay; but Okiliak, who had spent nine winters in this country, assured me that, if we made a portage of two miles over some hills which ran along the north-west side of this by-lake, we should drop down onto a river leading back into the lake we had left. The mist was still very dense, and we could scarcely see a yard ahead; but having full confidence in Okiliak, I decided to see where he would take us. We had some difficulty in getting the sledges over the hill, but having done so we came down onto the river he had described, which took us out onto the lake from which we had strayed. This we crossed, and pitched our camp at 7.30. it was blowing and snowing hard next day, we again passed the time trying ineffectually to eatch fish, for I wanted to journey in fine weather if possible, and

to take an observation. On April 21 we went out on to a place which the Eskimo call Kubburok. It is an old camping-ground, devoid of wood or even of willows. We had another wretched day on the 22nd; snow was flying in every direction. In the evening we reached a spot that is noted for its fish at this time of the year. It was reassuring to hear the natives say we should certainly catch some, for our provisions had come to an end. We camped under a lofty hill. The fish which the natives expect to capture are quite small, weighing not more than ½ pound, and I distributed amongst the anglers some fish-hooks which had been given to me by Mr. Blanch, of Gracechurch Street, London, on my departure from England. Starting off early on the following morning, the fishermen plied their craft unremittingly till 10.30 p.m. Whether there were duck and geese on this lake in the proper season I cannot tell; now, at any rate, it was not the time to go after them, and, moreover, my chasseurs had sallied out armed, as I have just said, not with fowling-pieces, but with fishing-tackle. My astonishment, therefore, was very great, and my disgust unbounded, on learning that they had spent the livelong day in pursuit of a tropical* "wild goose," and had brought back, each jack man of them, in lieu of fish, what our cricketers call "a duck's egg."

We had nothing left on the sledges, and had not caught or killed anything since April 14. I do not think I have ever been in such a barren country; it

^{*} The reader will, perhaps, bear to be reminded that the adjective "tropical" relates indifferently either to tropics or to tropes (metaphors).

seems quite destitute of game, but I have no doubt that there are plenty of fish here in the fall and summer months. I had to consider the children, and should have been very sorry if they had starved, so I thought it best to go to the coast. I got observations here for latitude and longitude and variation of compass, besides getting many rays with my compass to conspicuous points. There is a hill here from the top of which you can see Nicholson's Island in Liverpool Bay.

On April 24 we started at 9.30 a.m. for the coast, and travelled over the height of land which divides this great waterway from the coast. I wanted to find the inlet marked on the existing charts as coming out of the bay between Point Warren and Philip Island, but failed to find it, and feel quite sure that it does not exist. We travelled for twelve miles across several lakes and over a few hills. From the height of land you could see the coast, and there was a deep open-water sky to seaward, which extended 10° from the horizon. The country on the other side bounding the coast is very flat, and looks like the ocean. There is no growth of anything but grass, which appears here and there above the snow. We were fortunate this morning, for as soon as we got onto the hills we found a few ptarmigan and killed them. Very soon after this, while crossing a lake, we were surprised to see a lynx on one of the hill-sides, which Kokatū quickly killed with his rifle -one of his fine shots. The animal was quite 200 yards away, and he killed it dead, while running, the first shot. I do not know what that lynx was doing there, for they are generally found more

inland, where there are rabbits, which are their chief food.

I took the thermometer and aneroid very carefully every hour, as I wanted to get the height of the land dividing this waterway from the coast.

After travelling all day we struck the coast at a placed called by the natives Nūvūktok; it is in the bottom of the bay formed by Point Warren and Philip Island. There are a few fish-stagings here, and it is evidently a place frequented by the natives during the summer. There are also a few deserted huts here. We arrived at the place at 9.30 p.m., having travelled for twelve hours without anything to eat, and our breakfast was not one of the best before starting. Here we encamped, and having plenty of driftwood we cooked the three ptarmigan and the lynx. It was not much between so many, but we thanked God for it, little as it was, knowing that it might be some time before we got any more.

From Nūvūktok to Imnāluk the distance was fifty miles, and in the ordinary way was only two good days' journey, but our dogs were in such a shocking state that it took us four days.

When at Imnāluk it will be remembered that Ulūuluk had promised me fish, and so we expected to find something there. On April 25 we started round the south-west side of this bay for Point Warren, called by the natives Nūvūk.

We travelled all day round the bay; there was plenty of driftwood appearing everywhere above the snow, the coastline being very flat, and we arrived at Point Warren at six o'clock, where we camped. There are here some deserted houses and fish-stagings.

My dogs were so played out that I had to kill two of them to keep the others alive. It is hard to explain one's feelings at having to do such a thing as this, for one cannot help having a feeling of love and affection for these noble animals, and even the natives shrink from killing them under the most trying circumstances. But they were all very weak at this time, and the two dogs in question kept falling down during the afternoon, which necessitated our stopping sometimes for half an hour, and made me think I might lose them all. Dezen and Lundi were shot by Kokatū, cut up into small pieces, and given to the rest. I was rather surprised to hear from Kokatū that they committed cannibalism very readily. This was not much when cut up between so many, but it was better than our own fare, for we had only made tea for ourselves since cooking the lynx and the three ptarmigan.

One would naturally be led to suppose that our camp at Point Warren on Thursday evening, April 25, was a quiet and desolate one, but this was not the case. After my camp was pitched I called Kokatū in, and told him to take Dezen and Lundi round the point and shoot them. He did not appear surprised, but did what I told him without a word. I am sure this brave fellow felt it most keenly, for he had always been kindness itself to the dogs, and they all loved him dearly.

The only difference I could notice in these people was an anxiety on my account because they had nothing to bring me but a pot of tea; they were just as cheerful in their own *iglo* as if they had plenty.

I sat up late that night working out observations,



TRAVELLING IN THE ARCTIC OCEAN.



MY LAST CAMP ON THE MACKENZIE ICE.



for I did not wish them to think that having nothing to eat affected me any more than it did them. I could not help pausing now and again in my work to listen to the shouts of merriment that they gave vent to.

Here we had a fair wind, and rigged up a sail on each sledge, which helped the dogs much, and at times simply swept the sledges on to the top of them.

We started from Point Warren at 8 a.m. on the 26th. I particularly wanted to get an observation before doing so, but the morning proved too windy. We travelled across two bays to an island seen in the distance from Point Warren, and I managed to get an observation here for latitude and longitude, while the natives made a cup of tea. There is a great quantity of driftwood all along this coast, which must be brought here by an easterly current. Between this island and the mainland a river comes into the ocean, which takes its rise in a large lake on the height of land which divides the waters of the Eskimo Lakes from the sea. The natives come here as soon as there is open water to get white-fish, that are very plentiful. A whale-boat can pass between the island and the mainland, but a ship has to keep far out to sea.

We travelled on till 5.30 that evening, and camped under a conspicuous hill at what is called by the natives "The Canoe Portage." Here the dogs started off at a run, much to our surprise, making us think that a bear or some deer were in the neighbourhood; but this was not the case: they had scented a dead whale, which must have been on the coast for

five years at least, and soon proceeded to dig under the snow. The natives took them out of their harness, and proceeded to put up the tents, not knowing what was buried there. While this was being done the dogs made several holes down in the snow, and tried in vain to tear away some portion of The natives soon blubber or meat from the carcass. got to work with their knives, and cut off great quantities of putrid flesh, which, though frozen, stunk with so bad an odour that I found it most repulsive; they then proceeded to eat great quantities of it, and seemed to enjoy it as much as the dogs did. I could not join in this feast, but retired into my tent to enjoy a meal of tea, which greatly refreshed me.

The sand-spit here runs out a long way to sea, and by making this Canoe Portage you save many miles. The curious-shaped hill mentioned here can be seen from Toker Point and Point Warren.

Saturday, April 27. I got observations for latitude and longitude before starting at 10 a.m. We were in hopes of reaching Imnaluk, but after travelling all day and part of the night, we had to camp out in the middle of a bay at 1.30 a.m., the dogs being unable to go any farther. We had no wood, and could not even make a cup of tea. Hungry and tired, but yet full of expectation of what the morrow would bring forth, I was glad to get into my sleepingbag. The next morning—April 28—I got up, expecting to get to Ulūuluk's iglo in a few hours, and there to obtain fish, which he promised in February to have ready for me in April. We started at 12.30 in a strong wind and fog, only to

find Ulūuluk's iglo deserted, and everyone gone from Imnāluk—probably starved out. This was a disappointment, for it would be a very good day's journey on to Kangianik, where Tyukpūna lived, and perhaps he would be starved out too. However, we had to make the best of it and take our chance. I don't think any of us felt very fit, but we all kept up our spirits and laughed at our misfortunes. We got to Toker Point that night. Here there was a dead whale on the shore that had drifted there last fall, but it was tougher than any shoe-leather, and impossible to swallow. This was the fourth day since we had a meal, and if we did not find food at Kangianik, things would really be serious. natives, and the children especially, are very cheerful. It was easy to stand these hardships with such companions; they never refer to food.

I got observations at Toker Point for latitude and longitude and variation of the compass, and went on to Tuktuïaktok, where we found two fish on the staging belonging to Avoyuuk, which he told us to take if we needed them. We did not stop to cook them, but made a cup of tea while eating the fish raw, and very excellent it was.

This is a bay where a ship could winter. There are eight fathoms of water between a small island and the mainland, forming a splendid harbour, and this is the only harbour I know of between Herschel Island and the Baillie Islands. Fish can be caught here all the year round, and there is plenty of driftwood. Captain McKenna has put up a wooden cross to mark the place. After refreshing ourselves here, we went on, crossing two bays, and arrived at

Kangianik at 1.30 a.m. on May 1, after starving for five good days.

Kangianik is the best place to winter on this coast. They catch fish here all the year round—white-fish, *inconnu*, and trout—besides getting a few deer every year out of the neighbouring hills, both on the mainland and Richard Island.

In the fall great numbers of fish are caught and dried all along this coast, and I have not visited any place that is not good for a fall fishery. This bay forms a fine harbour for a whale-boat, and there are few places so well protected from the prevailing wind. On the north-west it is guarded by Richard Island, and on the south-east by the mainland. There are great quantities of driftwood everywhere round the bay and all along the coast.

Tyukpūna, who is the oldest Eskimo on this coast, lives here all the year. He has a very nice house, which is described in Chapter V., p. 43. I saw him in February, and arranged with him to give me some fish in April, and so he had a good supply waiting for me. He received us in a most welcome manner, giving me the best of what he had. The first thing he did on my arrival was to put a large dried fish in front of me, followed by bread, cooked fresh whitefish, and whale-blubber. This to a hungry man appeared like a banquet. I did not want to waste any time here, as the season was advancing, and we had far to go to get to our whale-boats. May I was rather windy, so I rested, and on May 2 got observations for latitude and longitude and variation of the compass.

On May 3 we took leave of our hospitable host,

having loaded up our sledges with about one hundred fish and a lot of whale-blubber, and reached Kittigaruit, the home of the Kogmolik, where we camped at six. The associations of this place are most interesting. It is the old Point Encounter, so named by Sir John Richardson.

There are many deserted houses and old graves of the Kogmolik, where they had lived for many generations until 1902, when they had an epidemic of measles in the spring, which killed eighty of them. Since that time they have never lived here, but come for September and October to catch and dry fish. This they bury in large bundles, and fetch it with dogs in the winter.

From Kittigaruit to the south-west corner of Richard Island is almost a continuation of the east branch of the Mackenzie River—a distance of twenty miles, being from one mile to 500 yards wide; and it is reported by the natives that the bottom of this part of the river is a mass of human skeletons. It is the place where they hunt the white whale in kayaks, and often spear one another while doing so. The man who has killed the greatest number of his own tribesmen is looked up to by the rest.

It took us to May 9 to get to the south-west end of Richard Island, where I camped for a day, and did some triangulation, getting observations for latitude and longitude. From the top of the island you can see the mountains on the west side of the delta—a distance of fifty miles. The native name of this place is Tūnūnūk. It is an old campingground; there are a few graves on the top of the island, and it is a good place for fish, rabbits, and

Island, and a great quantity of driftwood everywhere. We camped here for one day, and the natives killed about twenty rabbits, catching five fish, the largest of which I weighed, and found it to be 35 pounds. The water is deep between a little rocky island and Richard Island, and this is where the natives eatch fish under the ice in the winter.

We were now only one day from Kūnuk and Okiliak's whale-boats. We started at eleven o'clock on the morning of May 11, reaching there late that night. Kūnuk made us welcome, as usual, giving us all he had. I only stayed one day to get observations, and I had to part with Okiliak here, which meant that Kokatū and myself would have to go on alone. The season was advancing, and already the snow was soft in the river, with a little water running at the sides.

Knowing that we might meet great difficulties in the 100 miles we had to go, I decided to take on only one sledge and six dogs.

On Monday, May 13, we started, and had some difficulty in getting the sledge on to the ice, as there was much open water on the side of the river. When the ice breaks up, the rivers always open at the side first, and it is generally some time after this that the main ice breaks. We had to get back to our own whale-boats, or we might lose them, as they were left last fall in a very unsafe place. The water always rises in these lakes as soon as the snow melts, and it is impossible to gauge what that rise will be, as it varies much with the snowfall.

With Kūnuk and Okiliak to help us, we got the

sledge into the middle of the river. The snow was very soft: it was quite impossible to wear snowshoes, and without them we went into slush and snow This made the going very hard above our knees. for us, and still more so for the dogs. We travelled very slowly, and did not get very far during the day, knowing that the river might break at any time, and the snow was harder at night. I went on all night, and camped on the morning of the 14th, at ten o'clock, in the middle of the ice, as it was quite impossible to take the sledge ashore; but Kokatū and myself had to go ashore to kill some rabbits to eat. We had to wade through water up to our waists. When we got ashore, we put on our snowshoes, and soon succeeded in getting fourteen I killed four and Kokatū ten with 22-calibre rifles, which are the best and lightest guns for small game. When we got back to the camp it was just noon. We were both very tired, for we had been pulling the sledge to help the dogs all yesterday and all night. After having a good rabbit stew and some tea, we went to bed, and slept till ten in the evening, starting again at midnight. On the 14th we had another night of toil through bad ice and snow.

We camped at 10.30 on the 15th, again in the middle of the river. I was afraid that the river would break up before we reached our boats. This went on until the 17th: we often travelled for fourteen or sixteen hours, and hunted for three or four; but after having had four days of excessive toil, I found it quite impossible to go on without a rest, so on the 17th I took observations at noon for latitude and

longitude, and rested until the night of the 18th. The east branch of the Mackenzie River is very crooked in places. There are hills close up to the river-bank on the east side, with islands thickly timbered on the west. There are several little streams coming in from the east, and most of them are good places for fish. There are plenty of rabbits on all the islands, and a few ptarmigan. The river varies from a quarter to a half-mile in width.

At midnight on May 18 we started on the last lap of our journey, and travelled until noon on the 19th, when we reached the little river coming in from the lake on which we had left our whale-boats. Here I knew we should have great trouble, as these small streams break up earlier than the main river.

At the mouth of this little river there was nothing but open water. I did not like the look of this, and so decided not to camp, but to go on if possible. We were now in a place that we could not stop at, as the country was quite flat everywhere, and the trees on the banks showed where the ice, passing down each spring, came up far over the bank; therefore it was most imperative to go on at once until we reached high ground, if not the boats.

From here to the boats it was about twenty miles, and there was so much water on the ice that it looked as if the little river had already broken.

Kokatū and myself went on to examine the ice with long sticks. We found several holes in it, and thought it unsafe to travel on. The other alternative was to make a bridge and take the sledge

ashore, then make another one half a mile up the little river, and get back on to the ice.

The making of this bridge was a great toil. We had to cut down the longest trees we could find, and lay pieces across them, then cover the whole over with pine-brush. It took us some two hours to do this, but we were successful eventually, and got the sledge ashore with our united efforts, getting into the water up to our necks. We travelled along the bank for half a mile, then made another bridge, and took the sledge back on to the ice. It was a great labour, taking all our strength.

It was seven o'clock on the night of the 19th when we started again, through soft snow and water. The dogs were quite useless; they broke through the snow every time they tried to pull, and we had to pull the sledge ourselves, standing in slush up to our knees. We never rested, seeing the situation was such a serious one, but toiled on until we got to the lake on the 20th.

Here we had more difficulties from open water, and after a long delay eventually found a snow-drift that we had to risk taking the sledge over to get on to the lake. In passing over I got in, but soon scrambled out again, and once on the lake it took us only two hours to get to our boats, where we found Eiăki and his family. We had been travelling for thirty-six hours, and had not broken our fast.

It will be remembered that I parted with Eiăki in October last (see Chapter XI., p. 89), and I then admired very much the way that this native behaved; but now our meeting was much more trying,

250 IN SEARCH OF A POLAR CONTINENT

for he met me with open arms, and shook hands with me. I felt touched to the heart by the noble manner of this fine fellow, and could not help wishing that I had never parted with him.

Thus ended a difficult journey of 400 miles. Kokatū, his wife, two children, and myself were all well and cheerful, and delighted to meet Eiäki and his family again.

CHAPTER XVI

HALCYON DAYS

May 30 to June 14, 1907

Meeting Eiăki—The limit of rabbits—Immigration of wild-fowl
—A difficult tramp—Melting snow—Toasted rats—Happy
days—Shifting camp—Eiăki starts ahead—Solitude—
Leisurely progress—A fair wind—A butterfly bairn—The
fringe of civilization—Tracking up Peel River—Arrival
at the Fort.

A sad story Eiäki had to tell us about the scarcity of food and other hardships which he had undergone. After I had left him at the south end of Eskimo Lake he took his family back to the Mackenzie River. Here they found a number of rabbits and lynx, as also a few fish, but were otherwise often without food. While the sun was below the horizon they caught a quantity of very large pike with hooks. Of furred animals they trapped but few-foxes and lynxduring the entire winter; nor were these of any great value, for the natives of this region do not consider that they have done well unless their traps have yielded them at least 300 dollars' worth of fur. This sum the fur will easily fetch if it is black foxes that are trapped, for each of these animals is worth 100 dollars. When we met Eiăki he had not been more than one week at the whale-boats. During that period he had caught next to nothing, for though every man, woman, and child went out to fish under the ice every day, they seldom got a fish each. Yet, impossible as it was to catch fish, this is the only place in my recollection where the scarcity of fish was not, in however slight degree, eked out by ptarmigan, deer, or rabbits; it must be seldom you find a place so devoid of nearly every form of animal life. With respect to the rabbits, indeed, a curious fact may be noticed. On the inland side of the watershed which divides the waters of the Mackenzie from the ocean rabbits are superabundant; on the other side of the hill you will not find a single rabbit.

This region, then, I repeat, furnished almost nothing that either swam, or flew, or crept, or used any other known form of locomotion. There was, however, one exception, for when Kokatū visited some smaller lakes he found a rat-house, which afforded some seventy most acceptable musk-rats. This discovery, however, was not made until we had already been a week in the neighbourhood, at the end of which time we were in a very bad way; the dogs were worse off than ourselves.

The snow now began to get very soft on the lake, and large pools of water appeared everywhere near the shore. I measured the thickness of the ice—4 feet 7 inches on the Long Lake. On May 23 Kokatū went off with his rifle, and returned in the evening with two geese. This was the beginning of better fortune for us; wild-fowl now began to get numerous, but only, it is true, at a considerable distance from our immediate neighbourhood. To



EIAKI IN HIS KAYAK.



A SPRING CAMP.



reach our hunting-ground we had to trudge to the other end of the lake-toilsome trudging, since it took us knee-deep through soft snow and rotten The slush was in no wise due, as at first might be supposed, to the oozing up of water through cracks in the ice; it was precisely because the sheet had not yet cracked that the water formed by the melting snow was unable to run away. I took it into my head one day to go out with the Eskimo to shoot wild-fowl. I had much work to do, but to keep the wild-fowl on the move it was necessary to have as many guns as possible. For two miles we tramped through such slush as I have described till we came to the scene of our battue. Here there were two islands, which were large flat mud-banks scored with small channels, in which the wild-fowl were feeding, but were not easily to be approached. In crossing there we often had to wade up to our waist, but when, after much difficulty, we had spread ourselves out in different parts of the islands, we took up our stand, each in his own place, and the sport went briskly forward. Every time a shot was fired birds got up in clouds, but as we had scanty shelter they never came within close range of us. We succeeded, however, in getting ten geese and twentyeight ducks, nor did we reach camp until late that night. I then resolved to change our quarters as soon as possible, so as to be nearer to the scene of operation. By doing this we should be saved much unnecessary fatigue.

It was now, moreover, that the snow began to melt away from the hills, and to fill all the brooks, which rushed into the lake. In the latter, therefore,

fishing once more became feasible, for the rising water cracked the ice all along the edge of the lake, and encroached upon the shore itself. The icesheet was thus surrounded by a border or tract of open water, in which the fish assembled to feed, and in which, accordingly, we spread our nets. The women, for their part, often caught five or six fish during the day, and these takes, together with the wild-fowl, gave us plenty to eat. But choicer meat than either of these was yet in store for us, for Kokatū found that the lake teemed in one spot with rat-houses. These he set himself to plunder when he went out after geese; nor could anything more plump and tender than those musk-rats be wished The savour, however, was due to the cooks as well as to the rats. Each of the latter dangled on a short string from the end of a stick. This stick was stuck into the ground at such a distance from the fire, and the string was kept so constantly turning, that the meat was thoroughly roasted without any of the rich juices escaping from it. A white man would doubtless lack the patience and the delicacy of touch, both of which the operation, to be successful, would demand of him. Rat-roasters, like poets, are born, but not made, though the inborn knack-a knack which the Indians share with the Eskimo-is made perfect by practice. Be all this as it may, no European who had ever tasted this particular dainty would henceforth hesitate to eat it, however unwilling or unable he might be to prepare it. sooth, these collations were extremely delightful, and a joyous picture it made when the men came in with the game. Several fires were blazing, and every-

where the ground was strewn with feathers, whilst the sun beamed down benignly on the laughing. happy revellers as though it was noonday, instead of eight o'clock in the evening. There were thousands of small birds all around us singing ceaselessly to their mates, countless wild-flowers were covly pushing up their heads from beneath the snow, and from all the hill-sides plentiful berries were peeping, of which the women gathered a large dishful every day. What a change for the better was all this, and how pleasant it was to see enjoyment so rife amongst people who had just escaped starvation! The days went on, and still food kept coming in. The fish which we took from our net were hung up over the camp-fire to dry in the smoke and in the sun. The burns continued to discharge their volume into the lake, from which the ice was now vanishing. These were happy days, but they can only be duly appreciated by those who have emerged from the hardships of the winter. Before long we were able to get to work on our boats, which we overhauled before we put them into the water, mending them, as they had been scraped somewhat, in the fall of the year, by the ice. Once they were afloat, however, we felt that we were going to enjoy life again. So soon as we could clear a passage through the ice we moved our camp across the lake to the south-east corner. To do this it took us the whole of one day. We kept close into the shore, pushing the boat through drifting ice and often getting jammed in the pack; in the latter event we had to wait until the ice passed on, either leaving us a clear course or dragging us along with it. The lake had risen 20 feet, and there was now a great

torrent of water and of ice running through it. We found a beautiful camping-place on the south side of the lake in a bay that was well sheltered from the drifting ice; here we moored our boats, and made our camp on the shore in a thick clump of pines. Above this clump rose a conspicuous hill, from the top of which we could see the Mackenzie River, and we intended to start off, so soon as we should see that the ice had broken, to Fort McPherson. we were confined to camp until we could get a clear passage through the ice to our old cache, which was at the north end of the lake, and in which were stored the things that were sent over from my winter camp. Accordingly, when open water appeared along the south-east shore, I sent Kokatū with his family in my whale-boat to bring them. The same day that he left, Eiaki went up on to the hill, and reported that the ice on the Mackenzie had broken, and was moving down the river. Being anxious to get forward as early as possible, he set off that afternoon, taking with him his family and his son-in-law. His reason for going on in advance was that he might kill some game, and wait for us at the mouth of the river at which he had spent the winter, and which afforded the only way out of the lake. His plan seemed a wise one, so I told him to start immediately; this he did, leaving me alone to wait for Kokatū's return. The solitude of the next two days I found thoroughly congenial, for I had plenty to do, and could gladly have spent some weeks in completing the work of surveying on which I had been engaged between here and Eskimo Lake. Early in the morning on the day after Eiăki's departure I climbed the hill and got observations. The net had to be attended to each day, and in the evenings I had no difficulty in killing a few ducks and geese. Solitude, it has well been said, is the mother-country of the strong, and I easily understand how the Eskimo come to be so independent. Thrown entirely on their own resources. they yet have opportunities for calm reflection; they must both use and keep their heads, and though their circumstances may be often critical, the very gravity of the situation calls for an exercise of judgment which is wholly at variance with panic or with fluster. Nature, after all, is ready to play into their hands at need; however curmudgeonly she may seem with her boons, she seldom entirely withholds them. My own small experience had taught me that the worst plight in this country was rarely altogether hopeless: hitherto I had always managed to escape the starvation of which I had not unfrequently seemed to be within measurable distance; and to these people, who know no other life but that of hunting and of fishing, a well-founded confidence in their own ability to cope with the most serious situations in which they may find themselves is in itself no small factor in obtaining a livelihood.

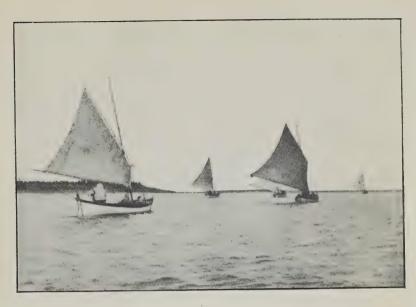
The loneliness, then, was far from unpleasant, and I was almost sorry when, shortly afterwards, Kokatū returned. The work which I wanted to do had to remain unfinished, for we had to start off without delay. But before leaving this lake, I offered up to God a prayer of thanksgiving for having preserved us during the past winter. Fourteen of us had been frozen in here last September, and, after nine months of continual strain to keep body and soul together,

every one of the fourteen was now going away from this place in perfect health. How quickly we forget our troubles, and how little we realize what a blessing good health and spirits are! How wonderful are the ways of God, and how beautiful indeed is His creation, which nowhere, perhaps, can be brought more strikingly home to us than in the enjoyment of these happy days of sunshine and of warmth after the sunless and desolate days of an Arctic winter!

On June 1, 1907, at 11 p.m., we set off for Fort McPherson. The sun was well above the northern horizon, for night was now the same as day. For us, indeed, it took the place of day, for except by night we were unable either to hunt or to travel, the sun being too powerful. During these hours of heat we generally slept. On our way down the small river which we had ascended during the fall we visited countless little lakes which lay to right and left of us. On these were innumerable wild-fowl. As I crept on to the bank of one of these lakes, and scattered a charge of shot amidst an unsuspecting flock of duck, I felt a kind of twinge of vegetarian remorse: how much better it would be to subsist upon roots and herbs instead of working havoc upon helpless but happy creatures which, by the superb tints of their plumage, spread a living glory on the lakes, whither they assemble to perpetuate this glory through future generations! On the small river I found plenty to eat, and no lack of good camping-ground, so we tarried there until a fair wind should arise and take us up the Mackenzie, which was now 30 feet higher than when we had ascended its frozen surface with our sledges. Against this swollen current, needless

to say, it would have been difficult, without a favourable wind, to make any headway, even though the flood had dropped considerably, as might be estimated from the tree-trunks which the broken ice had recently scored in passing by them. We soon got a wind from the north, and started off for another camp, some ten miles up the Mackenzie, at the mouth of a second little river, in which we hoped to get fish and game sufficient to take us to the Peel River. The spot indicated was a most delightful one: on all sides of us were outspread several large lakes, and we stayed in this place for eight days. I enjoyed this rest, and indulged in a little shooting every night. In the daytime, as I have said, the heat was too great to allow of any exertion, so I used to go out at ten in the evening shooting wild-fowl until 4 a.m., when I would return to camp with my canoe full of dainties. I would then have a good meal, and turn in for a sleep until four or five in the evening. I had no tent rigged up, only a large mosquito curtain, which is the only shelter you need upon all these rivers. I did a little work here likewise, for I got some observations, and surveyed both the river and the lake from which it issues. At the mouth of this stream we had two nets, in which we were getting twenty fish a day. Eiăki and his family had pushed on to the fort, where he was anxious to sell some of the fur he had procured during the winter. One day, while we were having our first meal, at 6 p.m., Niuk came into camp in a kayak. We were all glad to see him, and he told us he had come that morning from his own camp, twenty miles away. He was a very strong man, and had made the journey in quest of food

for his family, who were following in a whale-boat. We now had a good stock of dried fish, so, shortly after the arrival of Niuk's family and several other natives who came with them, we could not resist the temptation which a fair wind held out to us, to start off again. There were three whale-boats besides my own, and we set out one evening at six o'clock, running all night and all the next day before the wind. Our boat was loaded down, so the others, which were light, drew far ahead of us. We had been travelling in this manner two nights and one day when, at about ten o'clock on the second morning, Kokatū asked me if he could put ashore. This request surprised me very much: it is so unusual for the Eskimo to ask you to stop; but he added, before I could reply, that his wife was going to be immediately delivered of a child. This woman had been with us in all our journey, and had worked so hard that such an event was the last thing I should have looked for. upon seeing my surprise, told me that we should be able to continue our journey in an hour. Of course, I made him put ashore at once, and he soon had a tent rigged up on the beach. Meantime, I lit a fire and made a cup of tea. Little more than an hour had elapsed before Kokatū told me that we could now resume our journey, and his wife thereupon came out of the tent carrying the newly-born babe, as the Eskimo mothers always carry their children, upon her back and inside the atiki. We proceeded upstream again, and travelled until six o'clock that evening, when we camped, with the others who had gone before us, at Point Separation. Next day we went on to the Arctic Red River, halting for a few days while we



WHALE BOATS SAILING UP THE MACKENZIE RIVER.



FORT MCPHERSON



caught some fish, and while the natives bartered some of their fur for clothing. The delay was only a short one, and we were soon moving up to the mouth of the Peel, where we again stopped for a couple of Then it was that I first noticed how troublesome were the mosquitoes, and I could then find it in my heart to be thankful, in a measure, for my recent privations, since these maddening insects could not levy a very heavy toll upon one who had been so poorly fed. From this time onwards, indeed, they did not worry me any more than they worry the natives. At the mouth of the Peel we caught a few fish and killed some geese and ducks; we then began to ascend that river in a fair wind, but could not get very far, for the channel is very crooked until you get near Fort McPherson. A further hindrance was the soft mud, which made it hard to track, for in this mud those who towed the boat would often have been compelled to walk, since the banks are high and often yield but dangerous foothold by reason of the soil which is washed away from beneath them. One last stop—this time at Nelson's Fishery—enabled us to replenish our larder, and we then continued our journey until June 15, when it brought us to Fort McPherson.

CHAPTER XVII

THE RETURN JOURNEY

June 14 to September 2, 1907

Completion of maps—Change of plans—Arrival of the steamer—A case of starvation—Scarcity of moose—Rabbits—The last of Kokatū—Leave Fort McPherson—Some fellow-passengers—The Wrigley—An anecdote—Native schools—Fort Rae—Enter the Slave River—Inconnu—Fuel—The Graham—Taking to the scows—The Midnight Sun—Swift water—Fresh meat—Athabasca Landing—The future of Northern Canada.

On my arrival at Fort McPherson, Mr. Firth, the gentleman who was in charge of the Hudson Bay Company, and whose acquaintance I had made on my way to the coast, again extended to me his hospitality. With him I remained till the middle of July, waiting for the steamer; nor had I lack of useful employment with which to fill up the interval. One of the tasks to which I now addressed myself was the constructing of three new projections—new, that is to say, as regards neither the scale nor the details, but new in that they were reproductions of maps which I had already made, yet which were rough and dirty, in consequence of having been made on the floor of my camp. Even in this work of reconstruction I had to supply the want of an

ordinary straight-edge by means of the octagonal barrel of a rifle, with which I ruled the lines of latitude and longitude; and I plotted my work over again after checking it. In the next place I wrote a number of letters, in which I explained how little I had been able to accomplish, and in which I stated my intention of returning to the Arctic Ocean so soon as these letters had been dispatched. I had then posted them, and had packed up my maps on July 21. My mail brought news from home of sickness. This necessitated my returning; so, when I had read through my letters, I went to Mr. Anderson, the Chief Factor of the Mackenzie River district, and arranged with him to return on the steamer. This sudden check upon my plans was, of course, a great disappointment to me; but had I not at once taken the steps which I did, I should not have been able to get out of the country this year, since the ships which were coming in from San Francisco were going to winter in the Arctic. I was particularly sorry at having to leave behind me many most necessary things for Arctic travel which I had been collecting during my two years' residence in the country; furthermore, I had arranged with the whalers to bring me up provisions. All these appliances and supplies are hard to get in this region unless you yourself import them - whale-boats, sledges, and dogs; rifles, guns, and ammunition. These, together with the provisions, had all to be disposed of, and I gave them to the Eskimo, who had done so much for me during the time I had been with them. I was glad to see the steamer, as all men are who live in those far-distant posts. It is

this vessel which brings them a year's provisions, and once it steams away, that fort is cut off from the outer world until the following July. The day which brings this steamer is a red-letter day for those whom its arrival affects; and this, contrary to what might be expected, is more emphatically the case in our days than it was formerly—a fact which must be attributed to the steady decrease of deer in these parts. Mr. Firth assured me that he remembers the time when he could kill enough deer in a season to feed the entire population of the Mackenzie River district; whereas I doubt if today he could kill two. If I may venture to illustrate the significance of this same event—to wit, of the steamer's arrival—by personal statistics, I embarked upon the vessel at $2\frac{1}{2}$ stone below my normal weight. One naturally grows very poor upon the continual short commons, and, from the time of my reaching Fort McPherson up to the day when the Wrigley appeared, there was nothing to eat at the fort except fish from the river. These were not very plentiful, but those amongst whom they had to be divided were numerous, so that we existed rather than lived; and what may be said in this respect of one post may be said of all. This year in particular game was very scarce, and three Indians between Forts McPherson and Good Hope were reported to have starved to death. The reader may be disposed to wonder that this is the only, or almost the only, case of absolute starvation which has been mentioned in a narrative wherein scarcity of food has furnished an oft-recurring topic. Perhaps it is that, as creaking hinges are said to last the

longest, so amongst all those whose stomachs were so often calling out for nourishment this is the sole case—and it is one, moreover, of hearsay—which I can recall of natives having absolutely starved to death while I was in the country. During the first winter I was there, however, we had the deepest snowfall on record, and the moose, in consequence, fell an easy prey to the hunter. Given conditions that are favourable to them, the trail of these animals is most difficult to follow up. Fleet of foot. and travelling up-wind, they always come round in a curve, which very roughly resembles that of a hook. Having reached what may be called the point of this hook, they lie down, commanding a view of the shank of the hook. In the winter, however, of which I speak, their motion was impeded by the snow, in which they sank up to their bellies. great was the slaughter that few moose were left for the following winter. That approaching season was destined to be one of yet greater hardships, by reason of the scarcity likewise of rabbits-truly an ill-timed coincidence. For the dearth of these lastnamed animals the heavy snowfall may, perhaps, again be reckoned a cause, though only a partial one. When the snow begins to fall, the rabbits themselves find food scarce, and are reduced to living on the This bark bark of the willow and of the small pine. they nibble away ever higher up the trees, in proportion as the snow becomes deeper. Hence, when the thaw sets in during the springtime, and the snow begins to sink, the lower part of the trees, having already been bared of bark, can afford no further sustenance. This might be one explana-

tion; but, since the animals are further said to develop a kind of scrofulous sore, the cause of death might more plausibly be attributed to excessive inbreeding. Against this supposition, however, the alleged disappearance every seven years of the rabbits would seem to militate; for the regularity of this period seems to point rather to some corresponding periodic failure of the rabbits' food. It may here be noticed, by the way, that those islands in the delta of the Mackenzie which are known to contain rabbits during the open-water season are also regarded by the natives as a safe place for beaching their whale-boats. The reason is clear. The rabbits must have been on the island ever since the previous winter, since it is inconceivable they should have crossed during the season of open water. Had the island, therefore, been submerged, the rabbits would have been swept away; but de facto they are still there; consequently, the island is safe from inundation. This, however, is by the way. As regards the rabbits themselves, however doubtful may be the causes of their decreasing in given years, the fact remains that these animals, like the moose, had almost wholly disappeared for the time being, and it was with especial gladness, therefore, that the advent of the steamer was now hailed. As soon as it came in sight intense excitement prevailed amongst the Indian population, on whose ears the shrill whistle smote as rapturously as though it had been a dinner-bell. Many shots were fired in answering salute, and men, women, and children thronged the river-bank.

When I had read my mail, and had made up my

mind to depart, I set about writing some further letters—this time to Herschel Island—since it was necessary to let Captain Tilton know that I had changed my plans. I also wrote to Sergeant Fitzgerald. These missives I gave in charge of Kokatū. to whom I was now to bid good-bye. After paying this trusty native in full, I presented him with my whale-boat, rifles, ammunition, and cooking utensils. I then put my things on board the steamer, which, by-the-by, was very much crowded—so much so that most of us had to make our bed on the deck. We weighed anchor on July 22, at 12 p.m. The midnight sun was just below the northern horizon. We had to take in enough wood for the first part of our journey. This we did near the mouth of the Peel, and the operation took us five hours. We then started for the Arctic Red River, where we met the Catholic Mission steamer. It had just been built, and was named Sainte Marie. A fine-looking boat it was, and out and away the fastest of any on these waters. Here I again met my friend Bishop Breynart, who was making his annual visitation to the missions of his diocese. We stayed an hour, and then went on to Fort Good Hope. It seemed strange to me, after having been out of the world for two years, to drop suddenly into the lap of luxury, and to be restored to agreeable society. I had many pleasant fellow-travellers, for the Indian Commissioner, Mr. Conroy, was aboard, with his son. There were also five police, besides Mr. Wince, who was in charge of the Church of England Mission at Fort Norman. The capacity of the Wrigley is about fifty tons. Freight to this amount she brings into the country, in exchange for which she takes out fur that has been obtained from the Indians by the Hudson Bay Company. We stopped on our way at the different posts, only to load up with this fur-provisions having been disposed of on the way down-and with wood to burn on the outward journey. To Fort Smith, which is on the Slave River, there is a clear run from Fort McPherson, without either rapids or obstructions of any kind so far as the waterway is concerned. It is worthy of notice that all these rivers run into the Arctic Ocean, so that this is the only country in the world in departing from which you have to travel upstream. On the 25th we arrived at Fort Good Hope, where I was glad once more to meet Mr. Gaudet, who, it will be remembered, was in charge of this post. I was particularly impressed here by the gardens which I visited: they produced fine crops of nearly every kind of vegetable that we grow at home. I did not, indeed, see either peas or beans, but I noted how very fine the potatoes and cabbages were, as also the onions, beetroot, lettuces, and turnips. We took some of these vegetables on board, and they tasted every whit as good as they looked. After leaving Fort Good Hope, we passed through the ramparts. Here the river narrows down to 800 yards, and becomes more swift and turbulent, making it very difficult to steam against the current. It is now that you enter a mountainous district which gives grandeur to the scenery on both sides of the stream from the ramparts to Fort Simpson. Immediately before arriving at Fort Norman we came in sight of the Bear Mountain. Thereby hangs

a tale. The Mountain Indians, who inhabit the country on the opposite bank to Fort Norman, narrated to me a legend of what they declared to have befallen them when travelling far away in the heart of that region. The anecdote referred to a brown bear, which, as Sam Weller remarked of its Polar relative, "was well wrapped up," and which, in a further phrase which that "eccentric functionary" used on the same occasion, was "a mask of ice." Day by day this animal followed the Indians, who were moving their camp in quest of sorely needed game, and his icy overcoat-for he was solidly frozen over-rendered him impervious to the bullets with which they attempted to stop his encroachments. He would enter the camp, rummage around for what he wanted, help himself, indifferently, to a dog or a child. So great at length did the dread inspired by this monster become that the Indians in dismay sought to propitiate him by always leaving behind them, when they struck camp, a sop for his voracious appetite. This sop, however, served to whet rather than appease his hunger; nor was he willing to abandon hunters who provided him with such delectable hors d'œuvres. These persistent attentions on his part struck a special terror into the heart of an old woman, who conceived for herself inklings of a possible fate like that which the devoted virgins were doomed in the story of the dragon: she foresaw, in other words, dismal likelihood of some day being left behind in camp when the men had fared abroad after game. In that event the task would devolve upon her of supplying in too literal and melancholy a sense refreshment for the unwelcome visitor. There is said to be method in madness; and if panic had unsettled the old lady's wits, there was possibly some purpose in the curious practice which she now began to adopt in collecting resin from the pinetrees. The fateful day at length arrived: one fine morning she found herself left in charge of camp. No time was lost in giving effect to her precautions; and at this point the fable displays some affinity with the nursery-tale of the "Wolf and the Three Little Pigs." Boiling her resin scalding hot, she set the pan on top of a stick, which she stuck in the ground just in front of the door—just in time, too, for Bruin's arrival.

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And now the hunters returned to camp. Everything was quiet, and at first they were in doubt what the silence presaged. Had one more victim—a helpless and amiable old dame—been added to the dreary hecatomb? Their uncertainty was not of long duration. Squatting on the ground, with a face of gleeful triumph, was the old crone; curled up on the ground, at no great distance from her, lay the bear—no longer a "mask of ice," but a ball of resin.

We arrived at Fort Norman on July 27, and here I was sorry to see the last of Mr. Wince. He had made the trip for the sake of his health from here to Fort McPherson and back. He will, I am sure, endure many hardships before he sees the steamer again. On the 28th we arrived at Fort Wrigley, and on the 29th at Fort Simpson. This was the home of the Ven. Archdeacon Lucas, who, with his



COUNT VON HAMMERSTEIN'S WORK.



CATHOLIC SCHOOL, FORT PROVIDENCE.



family, was accompanying us to Athabasca Landing, and who, like myself, was on his way home to England. He had spent many laborious years amongst the natives, and was now to spend a brief and wellearned holiday in visiting his native land. After a short delay we steamed on to Fort Providence, where, with Mr. Conroy and Mr. Anderson, I visited the Catholic school. The children had prepared a little address for Mr. Conroy, thanking him for getting them a Government grant. I was particularly struck by the smart appearance of these children; and it is consoling to think that, though they may return to the Bush, amidst rough surroundings, nevertheless, the upbringing which they have received as children will have done much to reserve them. After leaving Fort Providence we steamed out into Great Slave Lake, and, following along the north-west shore, we passed on straight to Hardesty Island. Fortunately, the weather was delightful, and the lake, in consequence, very placid. I succeeded in getting two observations for the variation of the compass. Our object in touching at this island was to meet a party from Fort Rae, and to give them supplies for the coming year in exchange for fur. This business was briskly completed, and we then steamed across the lake to Fort Resolution, where we picked up several more passengers, and took aboard as much wood as we could carry. Our next task was to get into the Slave River; but, after some little trouble, and after taking many soundings from a boat which was sent on ahead of the steamer, we succeeded in finding the channel, and steamed forthwith up this delightful river to the foot of the

rapids at Fort Smith. These rapids extend for fifteen miles, and it is said that no inconnu are ever caught above them, though during October multitudes of these fish are taken in nets immediately below the rapids. As the height of the waterfalls is here nowhere great, one is forced to suppose either that the continuous succession of them baffles the fish, or else that the latter are, for some recondite reason, led to seek no farther ascent upstream. the inconnu is really of the salmon tribe, why should it be content to desist from penetrating farther upstream? We had burnt a hundred cords of wood coming upstream, and had taken fifteen days to make the 1,400 miles. The same steamer, be it noted, takes a third of the time to do this distance downstream, and burns only half the amount of wood when she makes that voyage into the country. The Graham, a paddle-steamer belonging to the Hudson Bay Company, was waiting at the other end of the portage, fifteen miles away, to take us on our journey to Fort McMurray. We could not proceed, however, until all the fur and baggage had been carried on ox-waggons over a rough and heavy track to Smith Landing, whither we ourselves had either to walk or drive. This delay took four days, each of which seemed as long as a week. Nevertheless, we were in comfortable quarters, for the Graham has accommodation for several passengers. I now took my ease in a state-room. The very bed had seemed a great luxury to me when I had been sleeping night after night for two years on the ground. Our next stage was to Fort Chipewayan, on Lake Athabasca; and, crossing that sheet of water, we steamed

up the Athabasca River to Fort McMurray—a distance of 287 miles, which we accomplished in four days, reaching the fort on August 14. Here we had to leave the steamer and to get into scows. About ten of these were waiting for us; they were then towed through the rapids by Cree Indians. Six men were pulling at each tow-rope, and the passengers walked over all the difficult places throughout these ninety miles of broken water. Scows are the only boats in which the rapids can be ascended, and the sight is one that is well worth seeing. Pedestrianism comes as a welcome change to those who have so long been "cribbed, cabined, and confined" on the steamers. Stretching one's legs, to be sure, in the manner which commended itself to Mr. Squeers was here impossible, since there were no wayside hostels; but if the banks of the river were dotted with no seductive taverns, they were strewn, in compensation, with delicious myriads of wild raspberries, of which we all made the most; and in this manner we reached the Grand Rapids. At the Grand Island we met another steamer—the Midnight Sun—on which we were to complete the journey to Athabasca Landing. The first stop that this vessel ought to have made was at Pelican Portage, which is only forty miles distant from the Grand Island; but the water was very swift, so we could make but little headway against it, and three days were consumed in accomplishing the distance. Like the fabled Irishwoman who lost on each separate orange that she sold, but gained on the whole amount, we, too, finally reached Pelican Portage, though we seemed to be losing ground the

whole way. Pelican Rapid is full of rocks; and, finding that we could make no advance against the current, we threw a hawser around a boulder which rose from the bed of the river, and also round the donkey-engine on the deck. By means of this attachment the captain hoped to draw the steamer up the rapids; but the hawser invariably broke, and the steamer drifted down again in the swift current, and was bandied about among the rocks. Eventually she had to be towed, and all her crew pulled lustily at the line, whilst she herself steamed at the same time at highest pressure. Soon after leaving Pelican Portage we espied a lynx swimming across the river—a very small mark to aim at from the deck of a moving steamer. No sooner was the creature sighted than about ten rifles were at once levelled at it, and I do not remember having at any other time seen so many shots fired at one animal. It was not hit until we steamed on to it, for, curiously enough, it did not seek to swim away from the fusillade, but waited for us so soon as the bullets began to strike the water all round it. After some hundred escapes, it was at last hit in the head, and, turning over on its back, it drifted alongside. Work was again found for the marksman shortly after we had passed Calling River—this time by a moose, which was swimming across the stream, and to which we immediately gave chase. A great number of shots were discharged, as previously, until at last the moose, like the lynx, received a bullet in the head. Before the moose was hit the natives had already lowered a boat, and they promptly threw a noose round the victim, which made its welcome appearance that night at supper. This was the first fresh meat that had been procured during the whole of the journey from Fort McPherson, and the relish, needless to say, was in proportion to the rarity. Athabasca Landing was now reached. Here my expedition had begun, and here it came to an end; but before taking leave of this frontier settlement, I may, perhaps, be allowed a few remarks on the country which extends from this landing to the delta of the Mackenzie River-remarks which may be acceptable to those who are interested in what is nowadays called "commercial geography." tract of which I speak is immense—the waterway which threads it being 2,000 miles in extent—and the country at present is inhabited only by Bush Indians, by a few fur-traders, and by prospectors who from time to time go into it. The natural resources of this country are very great. member once hearing my father say that the States of Illinois, Iowa, and Missouri were commonly believed, when he was a young man, to be barren wastes, where agriculture was impossible, and where no white men could live; but that by the few who knew of the capabilities of that region great hopes were entertained of its future. To-day these very States are the most productive in the Union. In like manner one might be tempted to hazard a prophecy as to the importance and prosperity of that country, so vast, but so little known, which lies to the north of the new province of Alberta; and, accordingly, I will venture briefly to submit an estimate of the commercial prospects of what may well be a career of immense industrial expansion which seems to

await the great region now known as the Mackenzie River Basin.

Canada, be it remembered, has an area greater than that of the United States; and at the last census the smaller country showed a population of eighty millions, as against the mere five millions at which the larger was registered. If, therefore, the resources of the larger of these two countries are relatively as great, the scantier population will admit of being increased fifteen times. The question of resources thereupon emerges; and before speaking of these in detail, it may be noted (1) that the soil here is as good as in other parts of the Dominion; and (2) that the winters are not more severe than those which are undergone in other portions of Canada. Six months, moreover, of open water may be reckoned upon-from the beginning of May to the beginning of November. The lakes and rivers abound with fish; there are inconnu, or Mackenzie salmon, white-fish, pike, and suckers, doré, trout, and herrings. The large inland sheets of water—such as Great and Lesser Slave Lake, the Athabasca and Bear Lakes—teem with fish, which forms to-day the staple food of the scanty inmates of these tracts. The fishing, indeed, would of itself be no slight asset were there any means of shipping the produce out of the country. This brings me to the subject of transport. Population will not merely increase with, but will itself enable the increase of, the means of communication. two will advance, like a couple of boys playing at leap-frog, each by the aid of the other-and will advance, like those youngsters, "by leaps and

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bounds." As the settlers become more frequent, the great waterways will be rendered navigable, and their banks, like the land abutting the railways that will make a trellis-work of the country, will be dotted with noble cities and with prosperous towns. There are at the present day three huge tracts that would quickly be inhabited were they invaded by the locomotive. A railroad from Edmonton to the Athabasca River would give access to 210 miles of waterway, in one direction, up to Lesser Slave Lake, and 165 miles of stream running down to the Grand Rapids. A railroad from Edmonton to the Peace River would open up 600 miles of a river yet finer, and running through a finer country than that approached by the firstnamed line. The third railway to be looked for would connect the Athabasca River at Fort McMurray with Prince Albert's, hereby giving easy access to the namesake lake from this fort. It might be objected that there are no markets in this country; but this objection we have already virtually forestalled. Given the spread of railways and the inflow of settlers, the establishment of markets will follow as a matter of course. Let me conclude my statement of the country's capabilities by mentioning its lime and stone, its oil and gas, its asphaltum, coal, and salt. In cherishing these sanguine hopes as to its future, I do not think I am alone. They are shared by a few who have gone off the beaten tracks, and made themselves acquainted with the country. When the immensity of these Northern lands is realized, one cannot wonder that few men should be familiar with them. In my

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travels there I have met with only one man who really knows the country from end to end, and if asked whether he did so, he would doubtless answer that he did not. I refer to Mr. Conroy, who has traversed its entire length year after year, has departed from the beaten tracks, and has in many places penetrated far into the interior. How, then, in the absence of railways, can men whose enterprise and qualifications are less eminent than his obtain in a lifetime an adequate knowledge of this outlying region?

CHAPTER XVIII

A FUTURE EXPEDITION

Results—The unknown region—How and why—Difficulties peculiar to Arctic travel—Ice at the Pole—The winter months—Supplies—Eagerness for fat—Food for dogs—The proper proportions—Capacity of sledges—Weight to be carried—Dog-driving—Eskimo—The trail—Light during the Arctic winter—Immunity from cold—Cost of a future expedition.

In the foregoing chapters I have attempted to lay before the reader a plain, straightforward narrative of my expedition. Let me now, in conclusion, offer a brief statement of the results with which that expedition has been attended. The first of these is a conviction that this journey has been to me a stepping-stone to a far more important enterprise. A second consequence of this particular journey is one which I regard as being of cardinal importance in any future expedition that I may undertake. This result is the intimate acquaintance which I gained with the Nūnātāmā and Kogmolik tribes, for without the assistance of Eskimo it will, in my opinion, be difficult, if not impossible, to reach the goal of Polar enterprise. If the measure, indeed, in which I achieved these results is less complete than I could myself have wished, it must not be supposed that I have been shaken in the conviction as

to the feasibility of my plans. Had this been the case, I should have returned sooner; as it was, I should not have returned even when I did had not news of illness from home caused me to defer, but not to abandon, the attempt to realize my project. Fully convinced as I was, when I left England, that the Polar problem is not insoluble, that conviction was strengthened, not impaired, by what I saw and underwent during my two years' sojourn in the Arctic regions. My desire to give practical effect to this conviction was, and has since remained, intensified in proportion. It is my determination, therefore, to make yet a further expedition, provided only that I can obtain the necessary support. The object of this journey will be to explore and to take soundings in that unknown region which lies between Prince Patrick's Island and Spitsbergen, passing over the Pole. The distance between Prince Alfred's Point, Banks Land, and Spitsbergen is 1,500 miles, and October is the month in which I should propose to start from the first-named placeif possible, in 1909. I should take with me 11 Eskimo, 18 sledges, and 162 dogs; and I should travel for 260 days. In order to find out how this journey can be performed, we must inquire why it has not been performed in the past; and I will now proceed to declare the reasons which seem to warrant me in believing that the journey can be made. The conclusion borne in upon me both by my own journey and by a long and painstaking study of the narratives of other explorers may thus concisely be stated. Given good health in the explorer, the difficulties peculiar to Arctic travel may be reduced to these



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two: the difficulty (1) of carrying supplies, and (2) of evading the bad travelling caused by soft snow and by open-water lanes while the sun is above the horizon. In writing this, I assume that there is at the Pole either land or ice. My own firm belief is that land will be found there, but certainly not open water.* That open-water lanes do exist in the Arctic Ocean I do not deny: such was the lead found by Commander Peary north of Grant Land and of Greenland; and such another lead will, in my opinion, be found along the American continent between 72° and 74° North Latitude. During the winter months, however, these leads would be frozen over, and could, therefore, easily be crossed; and I am further of opinion that the Pole will never be reached except by a party going out on the ice in October, and travelling during the whole of the winter night. I shall have something more to say about the composition of this party, for, unless it include Eskimo, I am equally convinced that the quest will be fruitless. First, then, as to the carriage of supplies. Can they be transported? I have no hesitation in answering that they can. The nutritious quality of the food, as well as its bulk, must hereupon be considered.

What does a man require in that climate? An outside estimate of daily food for a man who has to do hard work in a very cold climate is:

	Grammes.					
Proteid		٠.	• •	150		
Fat				200		
Carbohydrate				600		
Tot	al			$\overline{950}$ ($2\frac{1}{10}$ pounds).		

^{*} Geographical Journal, March, 1908.

It is obvious that this portion of nutriment can be obtained in various combinations of food; it seems likewise undeniable that a highly-concentrated diet, however advantageous it might be solely from the point of view of transport, would prove deleterious to the individual. In dealing with such people as the Eskimo, a food-formula must not be applied too The fact is that these folk, far more even than ourselves, want bulk in their food as well as nourishment. If you set three pounds of such highlyconcentrated food as pemmican before an Eskimo, he would eat it, and would still, like Oliver Twist, ask for more; but if you weighed out three pounds of oatmeal and then cooked it, not even an Eskimo would beg for a further portion. It follows, therefore, that the bulkiness of food when carried is a different thing from the bulkiness of food when eaten; and the expanding property of oatmeal when it is cooked recommends it, no less than does its well-known nourishing quality, as an ideal food alike for transport and for consumption in cold regions. What is true of oatmeal is true also, though in a slightly less degree, of rice. These cereals, therefore, would form two out of the three staples. The third of these staples, as may be guessed, must be some species of food eminently rich in fattiness. It would be difficult to single out anything that would answer to this requirement so well as cod-liver oil. I see the reader make a wry grimace; but he has surely read how the Cossacks, when they entered Paris in 1814, so thoroughly drained the oil-lamps down their gullets that the boulevards were left without illuminants. I can truthfully aver that an Eskimo will munch a lump of fat as rapturously as a schoolurchin will devour an apple or a piece of cake. This reminds me that an Eskimo boy-Avoyuuk's sononce came to me with five tallow candles—all that remained out of twenty-five, the rest of which had been eaten by him. There is little doubt that the remaining five would likewise have found their way into the little lad had it not occurred to him that wax for an occasional change is even more delicious than tallow; and knowing that I had some of the choicer variety of candles, he was anxious, as an English boy in his place would have said, "to swop with me." The taste for candles, I believe, is native, not acquired; but, short of this, an Englishman's craving for fat in that climate is scarcely less pronounced than is that of an Eskimo. for myself. I can truthfully assert that whilst here at home I seldom touch any but lean meat, I was always ready in the Arctic region to devour lumps of fat with eagerness.

Next, as to the food required by the dogs. Few dogs in the world work harder and keep in better fettle than do our own hounds at home, most of which are fed upon oatmeal, enriched by stock or broth. In like manner I propose to feed my teams on rice and oatmeal, mixed with cod-liver oil and extract of meat; moreover, as the sledge-loads successively diminish every fourteen days, nine of the dogs which have drawn the newly-emptied sledge will then be served up as food to the survivors. Furthermore, it may here be mentioned that the bill of fare alike for men and for dogs takes no account of extras, which may not unreasonably be expected, in the way of meat, since the Eskimo are expert sealers, and Polar bear may occasionally be met with.

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Having indicated the kinds of food, I may now pass on to their proper proportions.

To get the proper proportions, to each pound of rice must be added 4 ounces of fat, 3 ounces of proteid; to each pound of oatmeal must be added 3 ounces of fat, ½ ounce of proteid.

A man's allowance therefore is—

			lb. oz.
Rice			 1 0 per day.
Fat			 0 4 ,,
Proteid			 , 0 3 ,,
Oatmeal		• •	 1 0 ,,
Fat			 0 3 ,,
Proteid	• •		 $0 0^{\frac{1}{2}}$,,
			$\frac{2}{10\frac{1}{2}}$,,
			-

or rather over $2\frac{1}{2}$ pounds. This is well outside the estimate. $12 \text{ (men)} \times 260 \text{ (days)} = 3,120 \text{ pounds.}$

					lb.
Rice .			• •	• •	 3,120
Oatmeal.					 3,120
Fat .					 1,365
Proteid .				• •	 683
Of rice and	d oatmea	l (equal 1	parts)	• •	 6,240
Of fat .					 1,365
Of proteid					 700

Allowing each dog ½ pound of oatmeal per day, the dogs decreasing at the rate of 9 every 14 days—162 dogs would require 5,386 pounds of oatmeal. To this must be added 336 pounds of proteid and 1,010 pounds of fat, making the total weight of food for men and dogs 15,037 pounds.

Hitherto we have considered what kinds and quantities of food have to be carried. Let us now ascertain how the carriage itself may be effected. The capacity of each sledge is 1,200 pounds. If the reader will recall what I have said about my experiences of sledging in the mountains, he will have

some conception of difficulties which are not easily to be surpassed, even on the Arctic ice. Now, my total weight-instruments, fuel, ammunition, and provisions for men and for dogs-would amount to 20,000 pounds. To carry this amount I should require eighteen sledges and twelve men. This means that every second man would have to drive two sledges - no very difficult matter to Eskimo, who have been driving dogs all their life. These men think nothing of driving three sledges each—nay, more, when they go out hunting, they will often leave the whole moving train, consisting perhaps of twenty sledges, in charge of a few women. The fact is that the dogs will never go astray, but will always keep to the trail, if someone goes ahead of them, since they know that they will not get food anywhere else should they play truant.

Still speaking of transport, let me anticipate the possible question, Why take so many Eskimo. since taking more men entails taking more sledges? Incidentally I may here answer the more fundamental question, Why depend on Eskimo at all? The answer need not delay us long. To recur to a single example: the immunity which these people enjoy when taking fish from the net in extremely cold weather—a process which would skin the fingers of a European, however hardy and inured to that climate he might be—seems to show that the assistance of Eskimo is utterly indispensable to the Arctic traveller. But if you take Eskimo at all, you must take a number of them. The maintenance of their amazingly cheerful spirits, which are so valuable an asset in the enterprise, depends on their having fellowship of their own race. Again, the presence of several natives engenders those advantages which accrue from concerted labour. It may be remembered that M'Clintock travelled 1,400 statute miles in 105 days. This he did without any dogs: the men by their united efforts dragged the sledges. If, therefore, at the end of a journey, the total distance of which is 1,500 geographical miles, I should find myself reduced to the necessity of killing all my dogs, my Eskimo, in like

manner, will be able to finish the journey.

Hitherto I have dealt with difficulties which belong rather to the means or outfit for travelling. Let me now pass on to obstacles inherent in the travelling itself-inherent, but not insurmountable. If we cannot strictly be said to get over these obstacles, I hope to show that we have reasonable prospects of getting round them. Thus, if one cannot alter the nature of the trail, at least he can choose the season when the trail is at its best. Since travelling during the summer months is impracticable, by reason of the soft snow and of the openwater lanes, the obvious way out of the difficulty is to travel at the time of year when the trail is firm, as it is during the winter months. This entails travelling when the sun is below the horizon, but it in no wise entails travelling in darkness. We know that even in our own country, when the ground is covered with snow, how easy it is to see one's way; still more emphatically is this the case when the Northern Lights are in the sky. Once more, to save needless repetition, I may remind the reader of what has already been said in this connection in speaking of Enuktū, who found my camp during the winter



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night; of Mr. Stefansson, who travelled 200 miles during the winter night; and lastly, of myself, who have always travelled when the sun was below the horizon, and have never encountered the slightest drawback in doing so. To put the matter into a nutshell, the weather at this time of year is better than at any other; the light is more than sufficient for the purpose; and the cold, so far from being a hindrance, is actually a help. As regards the traveller himself, his fur clothing at all times neutralizes the shrewdness of the climate; and, as regards the sledges, the cold is turned to positive profit by the Eskimo, who, in extreme temperatures, wet the iron runners of their sledge, thereby converting them into ice-runners.

Here, then, I bring this book to its close. the general reader I can only hope that it has proved not wholly uninteresting; to those who are already interested in these topics, not entirely uninstructive. If the fates ordain that this concluding chapter must, for the writer at any rate, be final—that his own connection with Arctic travel must herein terminate—he trusts that others may subsequently carry to greater length the results which it has honestly been a pleasurable task for him to record. I sincerely hope, however, that I may again have the opportunity of making an attempt to explore that unknown region, with the experience of these previous journeys to guide me; and it is in the fact of my having made these journeys that the kindly reader will perhaps discern, more clearly than in the most earnest protestations I could make, that my scheme is neither hot-headed nor visionary. So far from being discouraged by the lessons these journeys have taught me. I have but been stimulated to renewed ardour. The sacrifice of comfort, and the expenditure of labour and of money, I have ungrudgingly devoted to the pursuit of my project. All that single-handed I can do I have done; but I feel that, with the co-operation of others, a much greater work might be done in the interests of science and of geographical research. My zeal remains unabated, my physical power unimpaired. But to bearing the undivided cost of the proposed expedition the means at my command are wholly inadequate. pense of the journey which I contemplate would be £5,000—surely no exorbitant sum when the funds commonly devoted to Arctic travel are borne in mind. Had I to equip a vessel of my own, five times that amount would be needed; as it is, I can attain my object by availing myself of the good offices of the whaling captains. With these men, as I have shown, I was enabled to put myself into close and friendly touch; and it is by them that I should be taken to Banks Land, whither they go every year in pursuit of whales. These allies, in fact, are only less indispensable to my scheme than are the Eskimo themselves, whom I should thus be enabled to take up on the way. If I can but secure amongst my own countrymen such willing co-operation as I can make certain of enlisting amongst the whaling captains and the natives, the first and greatest obstacle will be removed.

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